AMERICAN AGRICULTURIST.

Agriculture is the most healthy, the most useful, and the most noble employment of man.—WASHINGTON.

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THE

AMERICAN AGRICULTURIST

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PORK—BACON—HAM.—No. 6.

The term *antiseptic* is applied to those substances which prevent or retard the progress or tendency to decay, which is the natural condition of vegetable and animal matters when deprived of life. Antiseptics consist of creosote, the essential oils, salts, &c. The theory of their action has never been properly explained; some substances for this purpose are much more powerful than others, such as creosote and the essential oils; others, as tannin and corrosive sublimate, owe their antiseptic properties to the fact of their forming insoluble compounds with animal tissue, &c. This does not explain the *rationale* of the action of saltpetre and salt in preserving provisions. Although we are unacquainted with the actual cause of the preservative powers of salt and saltpetre, yet there are some circumstances connected with their action that explain in part their antiseptic powers. It is well known that the presence of moisture and the atmosphere are requisite to induce decay; that heat hastens and cold retards its progress. Now all the animal tissues, whether muscular or cellular, contain a certain amount of water, whilst the fluids, which are not withdrawn from the animal in bleeding, contain a large amount of water; these fluids contain several substances of a most complex nature, high atomic weight, and facile decomposition, to which the excess of moisture greatly assists. In proportion to its entire weight, none of our domestic animals contain so small a proportionate amount of muscle and tissue as the hog, the major part consisting of fat, which, from its more simple chemical composition, is less liable to decay, or becoming, as it is commonly termed, "reasty," or "rusty." This rustiness will generally be found on examination to have commenced in the decay of the enveloping or cellular tissue.

Common salt absorbs moisture where an excess is present, and yields the moisture so absorbed on exposure to a moderately dry atmosphere. These properties, in connection with the fact that salt is an agreeable condiment, render this substance, irrespective of its cheapness and general distribution, the most fitting antiseptic that can be applied. I am inclined to consider the ultimate action of salt in a great measure as mechanical, whilst that of saltpetre, (nitrate of potash,) as entirely chemical. When a quantity of dry salt is applied to pork recently killed, and thus left in a dry apartment, the salt will soon assume a moist appearance in consequence of the union of the moisture in the meat with the salt, eventually forming a liquid called brine. If this brine and moist salt is now thrown away, and fresh dry salt applied, the whole of the moisture in the meat may be extracted with the exception of that moisture which is retained by the greater chemical affinity of the animal fibre. Meat so treated would, no doubt, keep well, but it would be excessively salt. In the course of salting meat, the animal tissues become saturated with a solution more or less strong, according to circumstances, of salt. In drying, the water in the brine is evaporated, the meat becomes to a certain extent desiccated, many of the pores are filled with and the exterior parts become covered with an efflorescence of salt; the moisture having been in a great measure extracted, combined with the presence of a considerable quantity of salt not only in the tissue but as an exterior coating, preserves the meat from the action of the atmosphere, provided it is kept in a dry place.

Salt, alone, will not give that agreeable red color so much admired in preserved meats; this is accomplished by using a small quantity of saltpetre. The change of color caused by using saltpetre is a pretty fair proof that a chemical combination takes place; a further proof is that the muscular fibres are rendered decidedly firmer when used, and when in excess, causes the muscular part of the meat to become harshly hard, or, as it is commonly termed, stringy and tough.—*Jour. Royal Ag. Soc.*

SUBSOIL PLOWING.

"It is vastly strange if this is so great an improvement over the old-fashioned mode of plowing, that so few are found to practise it. In fact, nobody practises it. A few fancy farmers have tried it, with indifferent success, and the great mass of farmers have failed to be convinced of its advantages. The cost of such a process will deter them from even attempting it, unless the benefits be great and manifest."

I clip the above from a Connecticut paper, (the Sentinel of Middletown,) but hope it is not a true indication of the state of agricultural intelligence in that state, although I am aware some of her farmers are about as much in the dark ages as they were a century or two ago. To question the benefit of deep plowing, at this day, shows a lamentable want of intelligence. To say "nobody, in fact, practises it," only means a small circle of the *nobodies* of the editor's acquaintances. The sneering remark that none but a few *fancy farmers* have ever tried the subsoil plow in Connecticut, is proving too

much—it proves the mass of them are as far behind this age of improvement in agriculture, as their old bog meadows and alder swamps are behind their capabilities of production when drained, and that there is as much need of improvement in the swampy intellect of one as in the soil of the other.

PRICE AND WEIGHT OF FENCE WIRE.

We give below a table which will show the sizes of wire in hundredths of an inch; that is, No. 4 is 0.25, which shows it one fourth of an inch in diameter. The weights given are for strands of one rod, (16½ feet, or 5½ yards,) in length, and also for one mile (320 rods, or 5,280 feet):—

Class of wire.	Diameter in hundredths of an inch.	Weight per lineal rod.	Weight per lineal mile.
No. 1	0.32	4 lbs. 2 oz.	1,321 lbs.
2	0.30	3 " 10 "	1,166 "
3	0.27	2 " 15 "	944 "
4	0.25	2 " 8 "	809 "
5	0.24	2 " 5 "	746 "
6	0.22	1 " 15 "	627 "
7	0.20	1 " 9 "	518 "
8	0.18	1 " 4 "	419 "
9	0.16	1 " 0 "	331 "

The most economical size for serviceable field fence is No. 4. This can be bought at wholesale from five to six cents a pound. Almost the only requisite in building wire fence is to keep up the tension. That built by Colonel Capron, as described in our eighth volume, page 256, is as good as it was three years ago, and never cost a cent for repair. A good durable cattle fence can be made of wire for 50 cents a rod.

APPLICATION OF MANURES—CONCENTRATION OR DISTRIBUTION.

The following views by Mr. Charles Lawrence, recently published in the London Agricultural Gazette, are replete with good sound sense, and are well worthy the attention of American as well as English farmers. The principles herein advocated are applicable to all countries, irrespective of soil or climate:—

"I have never been able to reconcile with certain well-established facts in the growth and nutrition of plants, the very general practice of concentrating manures immediately under the seeds of our root crops. This practice appears to be extending; for I perceive our implement makers are exerting their ingenuity to contrive implements for dropping the manure; and that it has been observed repeatedly, in print, that drilling the manure is wasteful; as if that deposited between plant and plant was useless. I nevertheless adopted the practice, because, as a general rule, I think it the safer course to adopt any practice that has been in favor with the best agriculturists, rather than follow out theoretical views, however apparently well founded. Having, however, recently attended a lecture by Professor Way, delivered at a meeting of the members of the Royal Agricultural Society, at which he entered on this subject, incidentally, in his discourse on the preparation of superphosphate of lime; and his observations having been in exact accordance with the views I had previously entertained, I am induced to recommend my brother farmers who adopt the principle of concentration, to reconsider this matter. I have a strong impression the current is running in the wrong direction, and that, on the contrary, we should be seeking the means of the most minute division and extreme distribution.

"The facts to which I have referred, and which, to say the least of them, demand careful consideration, are that roots absorb their nourishment only at their terminal points; that these extend in all directions; and as the plant increases above ground, so do the roots increase their ramifications beneath the surface, and demand a continual supply of food. I am aware it will be replied, this process is in search of food, which will be unnecessary if this be supplied ready at hand. But is this consistent with their mode of feeding, and the conditions under which their nutrition is practically effected? It is well known they cannot feed on solids, and that they receive their nourishment only in a liquid or gaseous state; that this conversion is very gradually effected through the agency of the atmosphere or water, and consequently that it is readily accomplished in proportion to the minute division of the manure subjected to those influences.

"Again, just as the first delicate roots are emitted is not the time at which they require a concentrated supply of the richest food; but their appetites and their powers of assimilation grow with their growth, and, as they increase, they require a larger supply in all directions, and that readily prepared by gradual solution and decomposition. Entertaining these views, I was much pleased to see, some time ago, a prize offered by the Royal Agricultural Society for the best manure distributor as a step in the right direction; and I cannot but think the implement makers will be more usefully employed in contriving means for minute division, and thorough and equal distribution of manures, than for their concentration. It has been a frequent matter of discussion, whether it is the better plan to lay on the manure in the autumn, and

plow it in before winter, or to do this before spring sowing.

"The foregoing considerations would lead to the adoption of autumnal manuring, immediately followed and covered by the plow, by which means, the manure would be thoroughly incorporated with the soil during the three or four months they would be intermixed. The main objection to that system was heretofore considered to be that the fertilising elements of the manure, were, in a great measure, lost by the washing of the winter rains. The observations, however, made of late years, on the absorbent powers of all soils, except those composed mainly of sand, and which have been recently demonstrated by the highly important and interesting experiments of Professor Way, have clearly established the fact that the soil has the peculiar property of absorbing and appropriating all those elements of manures intermixed with it which are essential to the growth of plants—the most valuable discovery, perhaps, in its results, for which agriculture has been indebted to science."

DRAINING LAND PROMOTES HEALTH.

We establish expensive sanatory regulations to prevent epidemics, but little is ever said in this country about draining lands to promote health.

A French gentleman, who purchased a large tract of marshy land, reduced the per-centage of sickness upon his estate from twenty to one half of one per cent. in a few years, by drainage alone. We have read a graphic account of an experiment of this kind, with similar results, in Georgia. Governor Hammond, of South Carolina, has rendered large tracts of pestilential swamp inhabitable, by the same means.

The healthiness of large districts of England, not swamp, has been greatly improved by the thorough system of underdraining lately practised in that country.

POULTRY EXPERIMENTS.

I notice in the June number of the Agriculturist, page 193, that T. B. Miner takes exceptions to my using the word "about." My reason for doing so, was, that it might vary one or two eggs either way, not having taken the account for publication; and besides, it is the same word he uses in the introduction, by saying "about 80," &c. I have no experiments to offer until this season is past.

If your correspondent will wait, I will give him the result. R. Linsley.

West Meriden, Ct., July, 1851.

THE USE OF SALT IN AGRICULTURE.

A lecture on the Agricultural Employment of Common Salt was lately delivered before the Weekly Council of the Royal Agricultural Society of England, by Professor Way, which elicited the following interesting observations from Professor Simonds and other members of the society:—

Professor Simonds said that "he was not then prepared to enter fully on the subject; but he might remark, as a general rule, that although different conclusions had been drawn from the use of salt, according to the amount, and under the circumstances it had been supplied, it was exceedingly beneficial in moderate quantities, but prejudicial in large ones, as a condiment for the food of animals. He was aware that it had been considered by some persons to be injurious in producing abortion in ewes and cows. His experience, however, had not led him to such an opinion; for even when large quantities of salt had been given to animals, he had not found that it exerted any specific action on the uterine system, such as that which the ergot of many grasses was so well known to exert both violently and deleteriously on those organs. He thought undue quantity of food and plethora the more probable cause of abortion. It was difficult to fix the limit in which salt should be given to animals. Professor Way had placed in his hands a tabular statement of the amount of common salt contained in various kinds of herbage, from which he had been enabled to estimate the amount of that substance constantly taken into the stomachs of grazing cattle along with their ordinary food. He showed that cart horses, feeding on meadow hay, bean meal, and bran, took in a considerable daily proportion of salt; that in other cases, the hay was salted; and that the free use of rock salt was common on a farm; while the animals thus receiving these supplies of salt were not only uninjured by its use, but absolutely benefitted in their health, gaining vigor and strength. Sheep fed on clover hay and turnips would not receive so large a proportion of saline matter, and might therefore have more salt given to them in addition to their food. Horses might take with advantage from an ounce and a half to two ounces of salt daily; but an excess of it, no doubt, would render animals weak, debilitated, and unfit for exertion. Similar facts were applicable also to oxen, which accumulated flesh faster by the judicious use of salt than without it. Arthur Young, in his examination before a committee of the House of Commons, in 1818, had

stated that he found salt to prevent the rot in sheep; and Sir John Sinclair and many others had given evidence to the same effect.

Professor Simonds then alluded to the solubility of common salt, and its passage into the stomach and intestinal canal, its absorption into the system by the veins, its action on the liver, and the supply of soda it yielded to the bile; thus leading to a greater amount of nutriment being derived from the food. Sheep, living on pastures giving them the rot, were found to recover when they had access to salt; and he thought the probable cause of sheep not rotting on salt marshes, and recovering when put on them, was the healthy stimulus thus communicated by the salt to the liver of the animals, by which that organ was guarded from disease, and its functions invigorated. Salt, too, was well known as a vermifuge, destroying many kinds of worms in the intestines of animals, and conferring a healthy tone of action which prevented their re-occurrence. He then alluded to the prophylactic or preservative influence of saline impregnation against marsh exhalations, and its power of destroying the poison of those miasmata, as shown by Dr. Stevens, in his work on the blood, where reference is made to the fact, that, at Salina, in Genesee county, near Oneida Lake, New York, all the individuals in and about some salt works, situate in the midst of a marshy district, escaped from the attacts of marsh fever, while the population around them suffered.

Colonel Challoner's attention was called to the value of salt about fifteen years ago, by the late Earl Spencer; and since that time, he had invariably used it for his cattle, which, in consequence, had attained to a better condition of flesh than they had done when no salt was given them. His Devons were the best cattle on his farm, and they consumed the largest quantity of that substance.

Mr. Fisher Hobbs had little more to state on that occasion than he had stated when the subject was discussed by the council a few months previously. He agreed with Colonel Challoner, that those of his animals which had the most salt did best, and even pined after it when it was withheld from them. He did not consider that it acted simply as a manure on grain crops; but it stiffened and brightened the straw, and caused it to ripen from two to five days earlier than it otherwise had done. In the case of root crops, it was more beneficial to mangold wurtzel than to turnips; and in fact, that great caution was required in its application to the turnip plant, which was easily injured by injudicious use, on account of its great effect on the vitality of that plant. It increased the size of the mangold bulbs, and caused the plant to retain its fertilising character during dry seasons. He applied the pilchard-fishery salt broadcast on each side of the plants, in July, either alone, (in particular seasons,) or mixed with ashes or guano, (which improve it,) and then scarifying it. The frost had less effect on the salted than on the unsalted portions of his land; and by its means, light soil becomes more retentive of moisture, and more adherent and compact in its character. His land was variable, consisting principally of sand, gravel, and mixed soil. The fishery salt he employed was nearly of the same price as the ordinary salt of commerce, and it contained oil and animal matter derived from the fish. The wireworm died in it. In conclusion, he considered salt to be very beneficial to the soil, either alone or in a state of mixture with other subsances.

The Rev. A. Huxtable was rather for leaving off salt. Those of his sheep which had the most of that substance were the least improved in their weight; in fact, one ewe, very fond of salt, had become a mere skeleton from taking it in excess. He found that his animals were much purged by the use of salt. His milch cows, however, requiring more flesh than fat, were much benefitted by it. Roots were much used by him, and he continued the use of salt with great effect as a manure for their growth; indeed, in this respect, he could not do without it, especially in the case of his mangolds and carrots, for the latter of which, being a sweet root, of which all insects were fond, it acted as a shield against depredation for these crops. He drilled it in with ashes and urine. He mixed a saturated solution of salt with dissolved bones, and found it produced a more pasty and decomposed substance. His soils were gravel, clay, and chalk.

Mr. Fisher Hobbs thought it probable that the circumstance of Mr. Huxtable's sheep being shut up when the salt was given to them, was the cause of their purging; for he had known it to be the common practice in Leicestershire some years ago, when the sheep had a purging upon them, to get them into a fold, and give each of them half a handful of salt as soon as the diarrhœa made its appearance. This practice he had himself usually adopted with success, and he believed it to be common amongst flock masters.

Hon. R. H. Clive, the chairman, when travelling abroad, had noticed in the middle of hotel yards, where relays took place, a large block

of salt, to which the post horses had free access. He considered that horses in full work derived an advantage, more or less, according to circumstances, from this substance. With regard to its effects on vegetation, a curious result had occurred in Cheshire, where the Marquis of Westminster had applied salt liberally on a road four miles long, for the purpose of destroying the weeds on it; but it was found that the weeds, instead of being destroyed by this application, were more numerous than ever.

Mr. Barrow had found salt improve the strength and quality of his wheat straw, his neighbor's crops having been laid while his stood well. He had entirely destroyed fine rows of box in his garden by applying salt on his garden walks for the purpose of killing the weeds.

Mr. Parkins had not had a weed on his gravel walks for five years, by forming them on a bed or substratum of chalk mixed with coal gas tar sifted over gravel, and allowed to set; lime being used when a more compact substatum, (capable of bearing the pressure of a loaded cart wheel without yielding,) was required.

Mr. Mechi had used 150 tons of salt on 170 acres of land during five years' occupation. He found it essentially necessary for cattle and horses, when fed on wheat straw cut into chaff with bean meal. If salt were not given, their coats appeared rough and unhealthy; but with salt, they were sleek and healthy. His sheep and pigs also had salt. Horses and cattle received two ounces daily, yearling calves one ounce. Without being able to give the scientific reason, salt gave strength and brightness to the wheat straw, and prevented its lodging. He applied it at the rate of 300 pounds per acre, mixed with the same weight of guano. He also used a large quantity under the animals, to fix the ammonia in their manure, which it did far more effectually than gypsum. He had known of great advantage from mixing it in the dunghill. It was very beneficial to mangold wurtzel. It certainly, with all deference to Mr. Way, appeared to render the land more wet and adhesive. He thought it would not be so beneficial on undrained heavy lands. Early on a hot summer's morning, he had observed the grains of salt formed a wet spot, as though they had attracted moisture from the dews.

Professor Way explained that common salt might be a better fixer of ammonia than gypsum, on account of its greater solubility, Salt, from any deliquescence it occasioned, might affect land in regard to color and resistence to the action of frost; but moisture was not the simple cause of the good effects of salt.

Mr. Dyer instanced the deliquescent effect of salt in bacon-salting rooms, where the pavement was constantly damp. He had even known milk spilt on deal boards years ago, which now, in damp weather, always attracted moisture where the milk had been originally absorbed.

Mr. Fisher Hobbs referred to the power of the fishery salt to fix ammonia, and used it frequently with guano with a view to that object.

Baron Mertens expressed to the council his thanks for the kind manner in which they had acceded to his request, on the part of the Belgian government, that this subject should receive their attention, and give rise to practical discussion. He would only further trespass on their time by inquiring whether any experiments had been made to ascertain the increase in the weight of milch cows, and of the milk they yielded, in consequence of the use of salt as part of their food.

The Rev. A. Huxtable, having a dairy of 40 milch cows, had found it difficult to make experiments on that express point; but Boussingault had last year given an account of experiments similar in their object to those which were now the subject of Baron Merten's inquiry.

REMINISCENCES OF CALIFORNIA.—No. 1.

THAT portion of the state of California situated between the Sierra Nevada on the east, and the Pacific on the west, comprises all the sections of that interesting country, with one exception, that can be made available for commercial, agricultural, or manufacturing purposes. With the exception of the valley through which runs Carson's River, the tract of country eastward from these mountains is a barren, sandy, and almost trackless wilderness, with small oases here and there, on which the weary eye of the traveller rests with pleasure. When, parched with the burning heat of the desert, he longs for some green spot to relieve the tedious monotony. Much of this desert region has not as yet been explored, having merely been passed through, in a few places, by emigrants, whose routes were separated from each other by great intervening distances; yet, from the dreariness of every track that has thus far been tried, it may be inferred with a good degree of certainty, what those portions are which have as yet, by their very appearance, deterred the traveller, the miner, or the trapper from attempting to break in upon the secrecy of these gloomy and forbidding solitudes.

Such is Eastern California; but to one standing upon the dividing ridge between the eastern and western sections, how great is the contrast! He is, as it were, standing upon a great encircling wall formed by nature, one might almost think, to shut out from view the barren and desolate regions beyond. At his feet, flow the Sacramento and San Joaquin Rivers, with their numerous tributaries, winding through fertile vallies, and blessing with their waters a large extent of country. On the northern confines of the state, far as the eye can extend, the Klmath range rises, forest above forest, and mountain above mountain, until its highest peaks are lost in the clouds. Away to the south, the peering summits of some lofty chain are dimly drawn against the sky; and to the westward, the waves of the mighty Pacific chafe and foam against the rocky bounds which Nature has drawn for her.

Here, with the cloudless blue above, and with deep repose beneath, may the imagination lift the veil that hides the future, and glance at the destinies of this fairy land. As it runs over the wide prospect, it peoples it with thousands of busy inhabitants—sees every plain chequered with fields, and even the steep and rugged mountain sides yield to the efforts of man; everywhere, houses, gardens, orchards, and vineyards, scattered in countless multitudes over hill and valley; flocks and herds feeding on every hand; the broad highways coursing the valleys, or winding away over the hills, thronged with a busy concourse, all moving to and fro, actively engaged in the avocations of civilised life—sees villages, towns, and cities, with massive walls and glittering spires, which have risen above the mouldering huts of a departed race. It looks forward to the time, when, where now the Indian or the hardy miner, upon his jaded horse, is travelling along the narrow and solitary trail—the powerful locomotive with its heavy train shall fly along the rattling railway. Even at the present time, does reality warrant these imaginings; for, where but a short time since, was only the frail canoe of the red man, is now seen the proud steamer dashing along the noble rivers—where, so lately that ocean, which broke idly on its cragged shores, is now whitened with the sails of commerce, and amid the flags of a hundred nations our own motto and device floats proudly superior to them all—and, where, so recently, the deer, the buffalo, the elk, and the antelope roamed over these fertile plains, is seen the cottage of the husbandman, or the more humble dwelling of the herdsman or shepherd teeming in plenty and in happy content.

But whilst beholding here a prospect that Nature herself in her fartherst reachings could not improve, to which, though she would scatter with unsparing hand upon one favored spot all beauty and grandeur, she could not add one single touch; whilst taking at one vast sweep such an assemblage of grand and varied scenery, and whilst indulging in such fanciful images of the future, the traveller might revert, amid such silence and such scenes, to the far-off land of his home, and recall to his memory others, though less grand and beautiful, yet even dearer than these, might yield to a feeling of loneliness and regret when hearing there the ocean's loud roar, and seeing here the stern mountain barrier, mingling its snows with cloud and sky; both separating him from that home and from those cherished scenes so indelibly engraven on the tablets of his mind.

But let us turn from these roamings of the fancy, (however well and truly present developments would warrant us in carrying them out,) to sober reality, and take a view of California as she is at the present time, and of her fitness for the occupancy and various uses of civilised man. Of the fact that she is well adapted to support and encourage all the leading branches of industry, not a doubt can be raised, but to what extent remains yet to be seen.

Until the discovery of gold in her territory created such a universal furor, the attention of her inhabitants were turned mostly to the raising of stock, for which the mild climate and rich pasture lands of California are peculiarly adapted. Wild horses are found in abundance throughout the southern sections of the state, frequenting mostly, however, the rich interval lands bordering on the San Joaquin and Colorado Rivers, and their branches. Travelling along these rivers, these animals are found in large bands, feeding on the luxuriant clover and wild oats that fringe these streams. On the appearance of an intruder, they approach as near as caution permits, and after having satisfied themselves by close examination, they dash off across the valley at full speed; and in their course, whatever bands they come near will join in the flight, until frequently the plain is covered with hundreds and thousands, flying in a living flood towards the hills. Huge masses of dust hang upon their rear, and mark their track across the plain; and even after they themselves have passed beyond the reach of vision, the dust can still be seen, which they

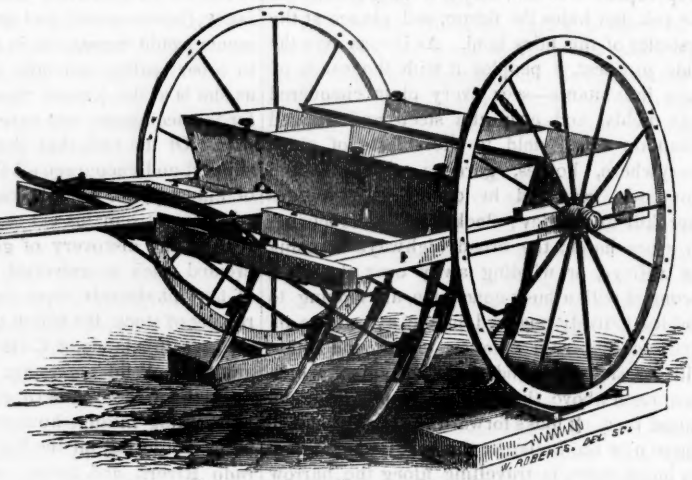
throw in vast clouds into the air as they move over the highlands. The Spaniards or natives, often capture large numbers of these horses by either driving them into an inclosure, (called a corral,) made for the purpose, or by pursuing them over the open plain, and using the lasso. When they have taken one, they confine it with ropes, saddle it, put a halter or bridle over its head, and, having loosened it, mount and ride furiously away until the animal is completely exhausted. This they continue to do until he becomes tame and tractable. These horses are of almost every variety of color, and of fine appearance; but are much smaller, and in some respects, their habits are entirely different from the same animal domesticated among us.

L. T. TALBOT.

GATLING'S PREMIUM GRAIN DRILL.

THE engraving below exhibits a grain drill, patented about two years since, by Mr. R. J. Gatling, of Indianapolis, Indiana. This drill combines the utmost economy with complete efficiency. To it was awarded the first premium diploma and silver medal, at the Ohio State Fair, last October.

This drill is so constructed that it cannot choke nor clog, either from the foulness of the ground or seed. It has been used the two past seasons with entire satisfaction. The prices vary from $50 to $80, according to the size and mechanical finish.



PREMIUM GRAIN DRILL.—FIG. 55.

POULTRY RAISING.—No. 6.

IN my last article, I spoke of $5 as being the price per pair for the large breeds of fowls, but that sum I find is the price of eggs per *dozen!* I have recently conversed with a gentleman in this vicinity, who paid $9.50 for two dozen eggs of the Shanghae and black Spanish breeds, (one dozen each,) and he was eager to find more at the same price!

Dr. Bennett has recently sold his famous "wild Indian game hen," imported by Mr. Stockbridge, for Mr. Estes, of East Abington, Massachusetts, to a gentleman of Macon, Georgia, for $120!!! This is no hoax. I have the proof beyond all dispute. A very common offer is from $25 to $35 per pair for Mr. G. P. Burnham's celebrated "Premium Royal Cochin-Chinas!" These fowls are said to be of the same breed that was sent to queen Victoria, said by an Irish writer to lay *two* and even *three* eggs per day! They are splendid looking birds, truly, weighing about 20 pounds per pair.

But of all the numerous kinds of fowls now in the country, I find none more highly spoken of than the *Dorkings;* that is, the pure breed. Of this race, there is the white, and the colored Dorkings, though some writers consider the white, as the original race, and the colored, a variety. There are many fowls embraced under the name of Dorkings that are a spurious kind, caused by careless attention in breeding. Those breeders who have the colored variety of pure blood, or nearly so, consider that kind the best, inasmuch as many of them have never bred the original white breed. Dr. Eben Wight, of Dedham, Massachusetts, has the best importation of Dorkings in this country, if the praises lavished on these fowls in all parts where they are known, be correct. They weigh about 15 pounds per pair—large plump bodies, with a full broad chest—a proud, erect, noble bird, of majestic courage, excellent layers, and good mothers.

Now this is a fowl that we need not laugh at—a medium between the two extremes. These fowls are held in such high estimation in Surrey, England, where they were obtained, that not a pair can be obtained without positive assurance that they are to be taken out of the country, and not even then, save as a personal favor to some friend. T. B. MINER.

Clinton, Oneida Co., N. Y., Aug., 1851.

ANNUAL SHOW OF THE ENGLISH AGRICULTURAL SOCIETY.

THE great cattle show of the Royal Agricultural Society of England is now in progress at this place, having opened on Monday. The number of cattle, sheep, and swine is larger than at any exhibition ever before held, and that of horses only exceeded by one previous one.

The show of cattle, as a whole, far exceeds my anticipations. In the shorthorn and Devon class, which are the *leading* breeds here, as in our own country, the show as a whole, can hardly be surpassed. There are, it is true, as of all large shows, many animals which had much better been kept in their native stalls, than brought here; still, the show of these classes, as a whole, is remarkably fine. In the awarding of prizes by the judges, it is apparent that *fat*, not *quality*, has been too much in the ascendant. The second prize bull in the shorthorn class of aged bulls, I venture to say, would not be selected by a single breeder in England, from which to breed. He is absolutely sweltered with flesh—more in fact than any fat animal I have ever seen at Smithfield Market. In my judgment, there were several bulls, some of which were commended by the judges, far superior to him in every respect, as regards his capabilities as a stock getter. As a general rule, this disposition to award prizes to fat animals prevails, and gives, as it should, very great dissatisfaction. In the class of bulls both aged and young, I think the proportion of inferior animals is quite equal to that at our own shows.

The exhibition of cows was excellent, especially the prize animals. The cow of Mr. Booth, of Warlaby, four years and four months old, to which the first prize was awarded, was an animal of extraordinary merit, and realised, to my mind, what a pure shorthorn should be. She attracted much attention; and so far as I heard, the expression was universal, that in this award, merit had been judiciously rewarded. The class, however, in which the shorthorns appeared truly prominent, was in heifer calves not exceeding three years old, and yearling heifers. I examined these classes again and again, and I must confess that the excellence of the shorthorns never before was so fully impressed upon my mind. There was a perfection of symmetry, a fineness of handling, and an adaptation in every respect to what the perfect animal should be, that secured the approbation, as well as elicited the admiration, of all the judges of stock who were present, so far as I could ascertain their opinions. In these classes, however, the prizes were awarded mainly to animals so fat as to be entirely unsuited for breeding, and probably, in most instances, will find their way to the Smithfield fat-cattle show instead of the breeding stalls. The number in these classes was 60, and they exhibited such marks of merit as might well, as it did, make the shorthorn breeders truly proud of their national stock.

In the class of Devons, there were many very fine bulls exhibited, and generally, they were not so overloaded with flesh as the shorthorns. The first prize bull, bred by Mr. John Quartly, of Champson Molland, was a very superior animal, possessing the characteristics of this truly celebrated breed of cattle. The first prize bull in the younger class belonged to Mr. Farthing, of Stowey Court, I consider, upon the whole, as the best Devon on the ground. He had all the fineness of bone, as well as substance that was desirable, and was truly a most valuable animal.

There were 30 cows and heifers exhibited, and the competition for prizes must have been very severe. Mr. Turner, of Barton, received the first prize in milch cows, and the first and second in heifers; and though I should have preferred Lord Leicester's cow, to which the third prize was awarded, owing to her superiority of handling, still, I presume the awards were in the main, satisfactory. There was among the cows and heifers in this class, much greater uniformity of excellence than in the shorthorns; and my impression is, that as a whole, the Devon class was the best on the show ground.

The Herefords were not in large numbers, only six cows and seven heifers. Bulls were more numerous; but the strength of the Herefords was in the cows and heifers. These were very good indeed; but if there had been selected the six best shorthorn or Devon cows, and the seven best heifers, my opinion is, that they would have maintained their superiority, in the judgment of most present who were competent to decide.

Of the longhorns, only a few were exhibited; but they were good and showed the best qualities of that breed, which, for certain purposes, even at this day, sustain them in some parts of the kingdom.

There was a fair show of Channel-Island cattle, that possessed the good qualities for which these cattle are esteemed, and many of them were of no ordinary merit.

Of the Sussex breed, resembling considerably the Devons in appearance, there was a very excellent show, and many of the cows evidenced very fine milking qualities.

Of Ayrshires, Angus, Highland, &c., there was a small show, but all were excellent representatives of their respective breeds.

A fine Italian or Roman bull, and cow and calf were exhibited by Lord Walsingham, of Merton Hall. They had enormous horns, but no special qualities to recommend them to the notice of breeders.

One of the most interesting little animals in the show was a pure Shetland bull, two years and eleven months old, with his long shaggy hair, and about the size of a very moderate yearling. He showed, however, the character of the isles from which he came, and attracted as much attention as the great overgrown shorthorn to which the second prize was awarded.

In the sheep department, the show of Southdowns and Leicesters was uncommonly fine and remarkably large. The perfection to which the breeding of these two leading varieties has arrived in this country is truly remarkable. Mr. Jonas Webb, who last year failed of the first premium on his ewes, I believe, through some means, this year, appeared in all his strength, and prepared for the show with such sheep as swept all before him, receiving the three prizes for shearing rams, and the second and third for other rams, first and second prizes for ewes; and the persons who received the other prizes were breeders from his flock. This was a triumph worthy of the most distinguished breeder in Great Britain. After an examination of nearly two days, in which I have given all the attention I could to the Southdowns, I am satisfied that in this case, merit has received its reward. This whole class contained many very fine sheep, and the competition was unusually great. The Leicester sheep were remarkably fine, and the number very large, and the competition unusally severe. A Mr. Sanday, of Holme Pierrepont, was the most successful in the reception of prizes. Not being professedly much of a judge of this breed of sheep, I still, after considerable attention, believe that the prizes were not injudiciously awarded. There were some very excellent Cotswold sheep exhibited. My own impression is, that they are quite equal, if not superior, to the Leicester, though not so numerous here.

There were some very choice Cheviots, (Mountain sheep,) exhibited. This I consider a very excellent breed. Their mutton is fine, and a cross with the Southdown produces about as fine a lamb for the market as one need eat. In hill lands and cold climates, I presume they do remarkably well.

In swine, the show stands out pre-eminent. There were 166 on exhibition; and large and small, there were specimens I have never seen excelled, though I have seen as good in the United States. Among them all, and there was a great variety of breeds, the Berkshires, in my judgment, were the best; though they were not exhibited in large numbers, and the prizes were awarded, generally, to other breeds. In our country, I consider they have done great service; and after looking carefully at the various breeds on exhibition, I am decidedly of the opinion, that for a cross with the common hog of our country, they are decidedly to be preferred.

The show of horses was not very superior. There were some very good horses in each division; but the number of worthless stallions and indifferent mares was larger in proportion, than at our show at Albany last year, or at Rochester, in 1843. The class called hunters were the best horses in my opinion, and I think them the best in this country for practical purposes.

I was much pleased with the arrangements of the show grounds. About 14 acres were enclosed, and long sheds, with canvass coverings, were prepared for the animals, which kept them quite sheltered from the weather.

The progress of this great society is onward, and its influence upon the agriculture of Great Britain, as that of our own State Society upon our agriculture is most manifest. The meeting, together of farmers and breeders from every part of the kingdom, the show and examination of stock and implements all tend to improve the farmer and breeder, and no one, I think, can doubt that such has been the result of these organisations.

The annual dinner, with the usual number of set speakers, for no one here speaks upon the spur of the moment, takes place this afternoon, and I will, instead of writing my account, send you proof sheets of the journals, which will be issued, it may be, before the dinner closes.

London, July 16th, 1851. B. P. Johnson.

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The preceding letter is from the respected secretary of the New-York State Agricultural Society, who is one of the commissioners sent out by our state government, to represent it at the great English Fair held at the Crystal Palace.

CULTIVATION OF SAINFOIN.

From the London Agricultural Gazette, we condense the following article on the cultivation of sainfoin, a crop, we think, well worthy the attention of the farmers of the United States. We would recommend it to be sown on limestone or calcareous soils, as it is best suited for lands of that description, although it will grow on those which are gravelly and light, with proper attention to the manuring:—

"There are certain crops whose agricultural merits demand for them a more extensive cultivation than they have hitherto obtained, which deserve, on that account, special notice in this section of our journal; among them is sainfoin, which is almost as much unknown in some districts, as it is universally cultivated in others. Plants of the same botanical character, such as clovers, tares, &c., are much more general in their distribution over land of varied nature; but they are not of more importance than sainfoin to the farmer who has land suitable for its growth. On the limestone soils of the Cotswold Hills, and upon the sheep farms of the chalk formation of Wiltshire, Hampshire, and Berkshire, it was, until the more extended introduction of the system of turnip farming, almost the mainstay of the stock keeper; and even now, it is acknowledged to be of so much importance that there is a clause in many leases that a certain quantity of land shall be left in sainfoin at the expiration of the term, and that this shall be valued to the incoming tenant according to its age and quality. Sainfoin is also grown upon the chalky and gravelly soils of Herts, Cambridgeshire, Suffolk, and Norfolk. In the southern counties, and upon the Cotswold Hills, the land remains in sainfoin for a term of years varying from four to seven, and sometimes even more. The first year's growth is inferior to the second; but, after a certain time the grasses natural to the land, and the growth of seeds from the hay upon which the sheep are partly fed during winter when upon turnips, quite smother the sainfoin, and the produce deteriorates in value; but still the rest the land has for corn cropping imparts a freshness to it, which is shown in the crop, following whether of grain or roots.

The varieties of sainfoin cultivated in this country are by no means numerous; the common English sainfoin, which is natural to the chalk and limestone soils, being by far the most extensive grown, and preference is given to the variety where the land is required to be in sainfoin for several years.

Most extraordinary prices were given a few years since for seed of the giant sainfoin, said to have been discovered by Mr. Hart, of Ashwell, Herts, and introduced into notice by Mr. Thomas Hine, of Newnham, in that county, who describes it as being more rapid in its growth in the spring, and after the first cutting—it will produce in one season two crops of hay, or one of hay and afterwards a crop of seed may be taken.

The French double-cut sainfoin, as it is termed by dealers in seeds, is very generally cultivated in the central provinces of France, and a considerable quantity of the seed has been imported into this country, and sold at prices very little higher than seed of English growth, during the last few seasons. It is very similar to the giant sainfoin, growing quite as quickly, but producing a smaller quantity of leaf.

A gentleman who has grown it two years in Norfolk writes, 'I find it early and quick in growing, both in the spring and after mowing, but I do not get heavier hay crops.' Another of our correspondents from suffolk, who farms an extensive tract of light and mixed soil land in that county, and to whom we are much obliged for his information, says, 'I planted part of a field with the French double-cut sainfoin seed, and the other part with common English—the same quantity of seed, per acre, drilled at the same time; so marked was the difference in favor of the French, the first and only year I have tried it, both in thickness of plant and quickness of growth, that I let the first cut stand for seed, for fear I should loose the stock, but I got little or no seed from it. So rapid, however, was the growth after the first crop was cut, that it soon passed in length the common sort, cut long before for hay, and produced a nice crop of seed the second cut. The sainfoins here, in a general way, do not lie more than one or two years. Mine lie two, and then wheat, for which purpose I very much prefer the French; indeed, if it is succeed with me as well in future as it did last year, I should not think of sowing any other.' From the above evidence, and from experience of their culture, the last two varieties, from their quicker growth, and from their coming sooner to maturity, may be recommended upon all highly-cultivated soils having a calcareous subsoil, the object of the agriculturist being to obtain a large produce the first and second years, and to keep the land clean and in good heart for the wheat crop.

For aught we know, the French double-cut seed may owe its quicker growth and earlier

maturity to the seed being the produce of a warmer climate, more than to its being a distinct variety, as we hear of its degenerating when grown from seed the produce of this country. If it is so, it adds another argument, so often advocated, of the importance of a judicious change and selection of seeds. And at the same time, it shows that some good to the farmer may come of the proposed repeal of the duty on foreign seeds, as the duty on French sainfoin is now a very considerable item in its cost.

GROWING RYE.

Moses Baker, of Tiverton, Rhode Island, grew winter rye last year at the rate of 31½ bushels to the acre, after corn, upon ground so poor when he took it in hand, his neighbors told him he could not get the seed back again. The crop this year is still better, and he thinks equal to 40 bushels to the acre. In measuring, the half bushel was heaped considerably.

The secret of growing such a crop, where it had been considered useless for years before to make the attempt, is very important, and now made public by Mr. B.'s permission. This is it: The soil is a granitic, dark-colored loam, based upon a hard pan of compactly cemented gravel. He commenced upon four and a half acres in the spring of 1849, and by hard scraping got three or four loads of manure to the acre, to which he added 50 barrels of fish and 35 bushels of shell lime, and then put the plow up to the beam, and harrowed and plowed again and planted corn. The yield was 46 to 50 bushels to the acre. As soon as ripe enough to cut up, he removed the corn and manured with 18 ox-cart loads to the acre, (say one and a half tons to a load,) of compost, made of sea muck, road wash, sods, weeds, leaves, and every substance that will decay, even bushes, and of course, all the butcher's offal, bones, and stuff from the kitchen, &c. He plowed and harrowed heavily, and sowed in September, one and a half bushels of rye to the acre, and harrowed in smooth. Upon half an acre, which everybody said was so poor it would not sprout rye, he put 100 pounds of guano, and this made a bigger growth than the remainder. After the ground froze, so he could cart over it, he put upon each acre six loads of compost, as a top-dressing, to prevent winter-killing. At harvest, the straw was generally seven feet high, and sold, after threshed, for seven tons, bringing $42, besides what he used, from the four and a half acres. The grain weighed 56½ pounds to the even bushel. The stubble was turned in with ten loads of manure to the acre, and sowed with a bushel and three pecks of seed, and afterwards top-dressed with six loads. The growth, last spring, was so rank it was necessary to feed it off, and the present crop is the wonder and admiration of that part of the country, demonstrating as it does, that the land had not *run out* for rye—it was only the owners who had run out of common sense, and expected crops without expending money or labor to fertilise or till before planting the seed.

One man, who had been a farmer 80 years, came several miles to see what he had never seen before, a crop of rye that would yield 30 bushels to the acre. How many Rhode-Island farmers will be induced by this account to put in a crop in the same way this season? Perhaps not one, except it be some book farmer from New-York city, like Mr. B., who was laughed at for supposing he could grow rye and corn upon that poor old worn-out farm.

PREMIUM FAT CATTLE.

Ever since our cattle shows have been instituted, we have been pained to see the great waste of food and time expended in getting up those enormous masses of *fat* and *grease* which are loaded on the frames of the beasts denominated at the head of this article. There is no good in it whatever, other than as showing the wonderful capacity of the creature to take on flesh—an almost dead loss to the feeder, and of little or no profit to the consumer. Tallow is usually less in price than either good beef or mutton; and when the animal is fatted to a good butcher's carcass, it has arrived at its most profitable destination. But so long as the viewing committees at the cattle shows will, regardless of cost or profit, bestow the premiums on nothing but over-fed animals, we see little chance for a reform in this matter. Indeed, we can imagine no object to the grazier nor feeder, in thus stuffing their beasts to such ungainly proportions, unless to gratify their pride in showing the creatures at the annual exhibitions and to gain a reputation, and enjoy the spectacle of seeing their cattle trucked out in ribbons, and perambulating the city streets with a band of music, followed by butcher boys, and a gaping multitude, in admiration of they hardly know what. No good housekeeper ever buys such beef for his own table; and no sensible man certainly will ever eat it when cooked, unless he prefer to make an Esquimaux of himself, and then he might fare quite as well on seal or fish blubber at a quarter the expense. We consider the whole system, from the fattening of the beast to consuming the flesh, wrong throughout.

As a test of the feeding faculty of the animal itself, such over-feeding is useless. An accurate account kept with the beast from the pasture to its final preparation for market, and the condition of its carcass when slaughtered, is the only true test of that faculty. It may be said truly, that the conditions of judgment at the cattle shows on fat beasts is, that an accurate account of the cost and manner of feeding be submitted by the owner. But every one who has witnessed these things knows that no true and unprejudicial account is ever rendered to the committees, and their judgment is consequently given in the dark, and in a majority of cases to the most expensive and unprofitable creature exhibited.

To such an extreme has this system been carried at the Smithfield shows, in England, that there is expressed a general feeling of disgust on the subject by the admirers of really good beef and mutton. The rivalry is only among the rich, who can afford to throw away 50 or 100 pounds sterling on an animal, while the profitable, matter-of-fact feeder, either shows nothing, or is driven off the field by such *practical* farmers as Prince Albert, the Duke of Richmond, Lords Leicester, Ducie, Spencer, or the score of Right Honorables who follow in their train, and who, with their huge, overgrown, and over-fed beasts, win all the prizes. No, the whole system is wrong; and while we have the power to regulate this thing as it should be in America, the mischief should be prevented by those having charge of our annual shows.

MILKING COWS.

As you have manifested some interest in my efforts in rearing up a herd of cows which should prove good and *certain* milkers, I give you a short history of my labors and results in this particular.

You know that I have been a breeder of both shorthorn and Devon cattle for the last 16 years, each in their purity, as derived from abroad. Like most of those who commence breeding fine stock, I had it all to learn, and have paid thoroughly for what little knowledge and experience I have got on the subject. As at that day, when I commenced breeding—early in the introduction of fine foreign cattle into the United States only—I had to obtain such as I could get, which were indeed among the best; but from the limited area of selection, not exactly such, in all their qualities, as I would *now* require for the objects I then had in view. I wanted a herd of good milking cows, as I had from observation ascertained that no selections from the common herds of our native cattle could be relied on for *permanently* maintaining a high milking quality among themselves.

During the first few years of my breeding, I had some imported animals, both good and inferior milkers; and from them I bred, like animals, uncertain in their qualities. The like results followed in the crosses of shorthorn and Devon bulls upon our native cows, although I found the heifers of these crosses *generally* superior to the usual run of native cows. I soon, however, adopted the plan of using none but bulls descended from the best milking cows, satisfied that it was quite as important that the *sire* should possess the milking qualtity as transmited through *his* dam and sire, as the dam herself should have to transmit, with certainty, that quality to *her* descendants. In retaining none but good heifers of the best cross, and breeding them to bulls bred only from high milking cows, I found that I was succeeding in what I desired to accomplish. Some years since, I introduced the high milking shorthorn blood of the late Mr. Bates, of Kirkleavington, into my herd, by obtaining the use of Mr. Vail's imported bulls Wellington and Symmetry, got by Wellington, out of his cow Duchess, whose heifers, almost without an exception, both through bred and grade, proved excellent milkers, and so continue. My bulls, up to the last season, have been of that stock. In 1843, I received from Mr. George Patterson, of Maryland, a yearling bull and two heifers of his fine Devon stock. His, from personal inspection, I knew to possess in a high degree the milking quality, which he had for many years cultivated in his herd. I had several fine Devons at the time, derived from another herd of an early importation; but their milking properties were uncertain. This bull, I used to my former Devon cows, and their descendants rapidly improved in their milking, while the young heifers from the Patterson cows, as well as the cows themselves, proved, every one, most capital milkers. Twenty quarts a-day, and even 24 have been drawn for weeks together from cows of that stock, and that quantity is good for any breed of cows whatever. As a matter of course, my indifferent milkers were sold off or otherwise disposed of, as the heifers matured. Although my herd has averaged upwards of 50 cows for some years past, it now, owing to less demand on my dairy, comprises only about 40, and there are but two or three in the entire lot but what are fine milkers.

During the past spring, I have had 16 young

heifers of three and two years old, thoroughbred shorthorns, Devons, and high grades, from both these breeds, which produced calves for the first time—for I have no common cattle in my herd. Every single one of these heifers having come out with fine, large, silky udders, fine taper teats, which yield their milk with the slightest pressure of the hand; and they all, without an exception, prove excellent milkers, giving, with their first calf, 16 to 20 quarts each a-day. And they will improve in their yield of milk until they are five or six years old. From my herd of cows, I am now raising 18 or 20 heifer calves, sacrificing none from so valuable a stock of milkers.

For the purpose of further improving the milking quality, if possible—retaining it at all events—and still introducing a fresh cross to invigorate their blood and constitution, I purchased at Mr. Sheafe's sale, last August, his beautiful imported bull Exeter, of the celebrated Princess tribe of shorthorns, from the herd of Mr. Stephenson, in England, and of the same stock as Mr. Bates' noted bull Belvedere, which Mr. Stephenson also bred, and from which descended the famous Duchess prize animals with which Mr. Bates has beaten all England at the cattle shows of the Royal Agricultural Society. Every thorough-bred and grade cow on my farm has been, and is to be bulled by Exeter this year. From his high quality, and fine noble appearance, I anticipate such a rare lot of calves next season as I have never yet had upon my farm. Exeter inherits in his long line of descent on the side of both sire and dam, great milking qualities, as well as other strong traits of excellence, and that he will transmit them to his descendants I can have no doubt.

Looking also to the continued improvement of my Devons, I have this year secured the services of one of the two fine young bulls selected and imported last fall by that excellect judge of stock, Mr. Ambrose Stevens, from probably the best Devon herd in England, famous, also, for their milking as well as breeding qualities. From these accessions, I anticipate most satisfactory results, and with a continued attention to the best selections of bulls to my already, as I think, well-established herd of milkers, in both my Devons and shorthorns, I hope to continue a race of dairy stock equal to any ever found, as a herd, on either side of the Atlantic.

From my remarks being chiefly confined to the *milking* qualities of cattle, it may be inferred that the fattening or beef properties of the animal are sacrificed. Not at all. This is still preserved in its highest perfection, as the unrivalled *handling* of these high-bred animals prove. No animal with such a *touch* can be otherwise than a good feeder, and the rapidity with which the cows, when dried of their milk, and put upon good feed, will take on flesh, is the highest evidence of their capacity, in due time, for the shambles. LEWIS F. ALLEN.

Black Rock, N. Y., August, 1851.

RABBITS FOR MARKET.

IT is a matter of surprise to an American first visiting England, to see the quantities of game which abound at certain seasons of the year in the London and other markets of that country, in contrast with the scanty, or rather no supply at all, existing in the markets of American cities. The reason for such difference, is, that in England, Scotland, Wales, and Ireland, every acre of the soil is appropriated to its most profitable uses, while we, from the abundance of land in America, select only the best for agricultural purposes, and let the remainder go barren and uncared for. Lands appropriated to the rearing of game, when fit for farm pasturage or tillage, is unprofitable, generally, with us; but there are thousands of acres in this state, and in New England, barren for other purposes, that might be devoted to the breeding and pasturage of rabbits, and which, by thus appropriating them might be turned to profitable account. All the preparation required is, to inclose it with a high and nearly close paling fence, and the erection of a few rude hutches inside for winter shelter and the storage of their food. They will burrow into the ground and breed with great rapidity; and in the fall and winter seasons, they will be fat for market with the food they gather from the otherwise worthless soil over which they run. Rocky, bushy and evergreen grounds, either hill, dale, or plain, are good for them, wherever the soils are dry and friable. The rabbit is a gross feeder, living well on what many grazing animals reject, and gnawing down all kinds of bushes, briars, and noxious weeds.

The common domestic rabbits are probably the best for market purposes, and were they to be made an object of attention, immense tracts of mountain land in New Jersey, and the New-York and New-England highlands could be made available for this object. We hope some of our friends who are over burdened with land now turned to no profitable object, will give this subject a thorough trial, and we think they will find their account in it.

Some may think this a small business. So is making pins, and rearing chickens and bees. But there is an abundance of people, whose age and capacity are just fitted for it, and for want of other employment are a charge upon their friends or the public; and now, when our cities and large town are so readily reached by railroads from all parts of the country, our farmers should study to apply their land to the production of everything that will find a profitable market. Things unthought of, a few years ago, now find a large consumption in New York and other cities by the aid of railroads; and we know of no good reason why this production and trafic should not continue to an indefinite extent. When the breeding of rabbits is commcommenced, get a good treatise on the breeding and rearing of them, which you will find at C. M. Saxton's, publisher of the Agriculturist, at 152 Fulton street.

A LETTER FROM NORTH CAROLINA ABOUT ABOLITIONISM.

I HAVE just received your June number, and find it as usual, full of abolition—practical, beneficial abolitionism—the *abolition of old notions and worthless tools* among farmers. I am really surprised to find such a red-hot abolition, disunion publication so eagerly sought after by my southern neighbors. I say *abolition*, for, our old modes of getting along here will soon be totally abolished. I say *disunion*, for I expect shortly to see an attempt made at disuniting the surface of the earth to a depth which, not more than two years ago, would have been considered as the work of some farmer "gone mad." Such were considered my first attempts to plow eight or nine inches deep. We look upon the Agriculturist as an abolition paper, which is working wonders towards abolishing old-field pines and broom-straw fields from North Carolina. Worn-out land will soon be worn out of existence. Our present race of cattle, improved—abolished—by amalgamation with a better kind—they could not be worse—indicating as they do a cross of goat and bison. Such abolition as this, is a consummation devoutly to be wished. The very contemplation of such a prospect is gratifying to North Carolina.

We have been visited by your travelling agents, Mr. Robinson and Mr. Sherman, and should like to see them again. Such visits set people to talking, and induce them to read, and then they begin to improve.

Cutting potatoes will not prevent the rot—I have tried it. You say almonds may be grown in North Carolina. Can we plant the common nut, and grow them? [Yes, the hard-shelled almonds.] Will nutmegs grow here? [No.—EDS.]

The mean character I have given to our cattle generally, does not apply to all. There are some of the Devon and Kerry breeds, which are hard to beat. I have a cow of the Devon blood, from which 20 to 24 quarts have been milked in a day.

Wishing you great success in the speed of your abolition principles and tools to accomplish that purpose, I am your agricultural friend, JOHN ROBINSON.

Black Creek, N. C., June 9th, 1851.

LARGE COW.

WHEN you say Grace was the fattest cow ever killed in this country, and also assert it is *undoubtedly true*, I must remind you of a cow sold at Brighton, in 1844. A Hereford cow, eight years old, weighed on the scales at Albany, 2,313 pounds alive. When put on the scales again at Brighton, she weighed 2,297 pounds, and was sold by Mr. Bennett, salesman, to a butcher in Boston, for $150. She was shown in Boston, (tickets one shilling each,) for upwards of a month, and then killed. Her beef was admitted to be of the best quality ever shown in that market, and the owner, to his sorrow, exhibited the quarters round the city on a warm sunny day, and spoiled the whole of it. *This is undoubtedly true.* I never ascertained what was her dead weight, but I *know* there was as small a shrinkage as in any beast ever bred.

Mr. Bennett, of Brighton, can give you a better description than I can, as he knows the purchaser, and can probably give you her dead weight. W. H. SOTHAM.

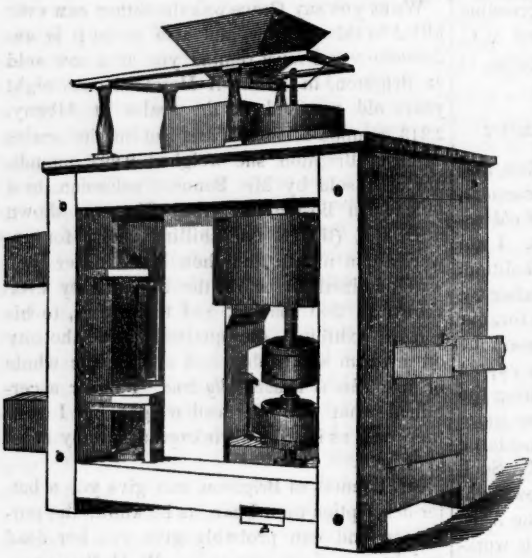
Black Rock, June, 1851.

PIE PLANT.—September, in the middle states, is the month for transplanting the roots of this most valuable article of food for the farmer's family.

"To raise it in perfection, trench a piece of ground about two feet deep, turning in the strongest manures to be had, at the rate of a barrowful to every square yard. Set the plants two feet apart, and you will have stalks as thick as your arm, and so tender as scarcely to sustain their own weight. It is the greatest feeder of all kitchen plants; and this is the reason why we see the great bulk of that sold in the markets small, tough, and flavorless—the plants are starved."

RICE HULLERS AND POLISHERS.

These machines, which are constructed so as to be driven by hand, horse power, or by steam, will hull and polish from 50 to 250 pounds of rice per hour. After the rice comes from between the stone and India rubber, it passes over a screen, and the meal, or fine powder, that wears off the kernel, runs through the screen into a box. The rice is then carried through a spout where it is exposed to a draft of air which blows off all the chaff, dust, &c. It then passes into a conical cylinder made of wire cloth, inside of which is a cone made of brushes that rub off the thin film of the rice, giving it a clean bright color. It then receives another draft of air which blows off the refuse dust through one spout, and the rice is delivered through another, perfectly free from meal, dirt, or chaff.



Rice Huller and Polisher.—Fig. 56.

These machines will also serve for hulling and polishing coffee, and gives it a clear, bright color, very much improving its appearance and rendering it cleaner than can be done by any other process. Dull or damaged coffee, in passing through one of these machines, may be increased in value from 20 to 50 per cent.

The advantages of these machines over all others are as follows:—

1. They will not break nor crack the rice as is usually done by other machines.
2. They give a superior polish.
3. They make from three to five pounds more rice to a bushel than can be done in any other machine.
4. The largest-sized machine is portable, weighing only about 600 pounds when set up.

These machines are constructed of various sizes. Some may be driven by one man, while others require a four-horse power engine. The prices vary from $80 to $600.

HUMBUGS AND IMPOSITIONS OF THE DAY.—No. 1.

As the tippler said by his glass of grog, this *Yankee nation* of ours is "a great institution!" No doubt of it, whatever. A Yankee myself, I have a right to talk on the subject, and I feel just at this minute somewhat inclined to talk pretty freely. The world is full of empyricism—it always was for that matter—but in past times, it has been chiefly confined to trade, science, arts, and theology. Yet of late, as the rising sun of investigation has begun to stimulate agricultural inquiry, the universal hosts of impostors and quacks seem to have jumped into the centre of that subject also, and laid the farming world under the same system of contribution to their avarice and impositions, as their prototypes have done with the other professions. It may be an unsavory subject to some of your readers, nevertheless, our duty to the public demands an exposure of agricultural as well as other humbugs; and as I have one or two in my eye just now, I hope you will permit me a little free talk on one at least of them in your independent journal. In all professions there are, and ever have been men of high purpose, exalted views, and expanded, benevolent hearts, ready to forward improvement in every branch of their calling, and doing great and signal deeds of benefit to their race. These deeds have been accomplished in fostering and aiding ingenious invention in the production of new and improved implements and machinery; the introduction of new, rare, and valuable seeds; the importation of improved domestic animals, and numerous other acquisitions in aid of labor, productive, or otherwise, to the substantial and lasting benefit of our agriculture. Nor have these benefactors been confined to the agricultural profession alone. Merchants—perhaps the most liberal and humanising in their influences, of all our industrial pursuits—have liberally disbursed thousands of their wealth in these valuable objects, and men engaged in other pro-

fessions have been unrequited benefactors to the agriculture of their country.

Such, however, are not those who are to favor the subject of my present writing. Getting hold, by hook or by crook, of improved farm stock chiefly, after their merit has been tested by intelligent men, a certain class of *cute* people set about *benefiting* the agricultural world with their *improved* animals. Of these we shall only enumerate a few—as *the run* may for the time have happened to be; and, first,

The Morgan Horse.—This, according to the general received notion of the creature, is a snug, compact, spirited, pony-looking horse, of 13½ to 15 hands high—an *accident* in his origin—named from the owner of the first of his kind; the *true* pedigree unknown, but given in a half dozen different phases by those who had it from "Old Squire Morgan" himself. This class of horses hail from Vermont, and some 40 years ago, the original stock being only *one* in number, and he a stallion. But so prolific has been the progeny of this *one* stallion, that at the present time, according to the *printed* authority of sundry agricultural and other papers and handbills, there are at least several hundred "pure-blooded Morgan stallions" standing, to say nothing of the number of like-blooded colts for sale, all over the country, from Maine to Texas; thus showing themselves a most remarkable breed of horses in more than one particular, as other breeds or races of animals usually show their *pure* descent from a dam as well as a sire. Indeed, such a universal modification of quality do these remarkable animals possess, that there may now be found "pure-blooded Morgans," from the original pony size of 14 hands, oftentimes to 16 hands high, and of the breadth of a cart horse, "*got direct from the original stock on both sides;*" and so extended is the benevolent spirit of their propagators, that about the season of the annual cattle shows, their cute visages are seen on sundry steamboats, railroad cars, and along the highways throughout the northern states, with tasselled bridles and gilt trappings, perambulating from one point to another in the exhibition of their wares to the gaping multitudes on the "fair" days. All these pretensions to blood, pedigree, &c., are most conveniently verified by affidavits and certificates, duly acknowledged before the Vermont and New-Hampshire Squires, who seem to have adopted a patent-right model of the kind for the accommodation of their customers. Each of these "unrivaled" horses, too, are the "*last one*," and indeed "the *only* one to be had in the neighborhood where he was raised;" but it so wonderfully happens, owing no doubt to the *peculiar fecundity* of the tribe, that the succeeding year another swarm, equal to the last, or *larger*, indeed, if the demand be *urgent*, is thrown off from the same prolific hive, where "not a single critter of the sort" was left to mark the "last of a mighty line."

Reflections, as our good old parson used to say in his sermon, when I was a boy. The *real* Morgan horse is a snug, compact, well-made beast, with a good deal of spirit, and rather pretty action about him, and may be found anywhere in the northern states where that style of horses is in vogue, comprising partly the Canadian-French horse, a dash of the turf horse, and the balance made up of the common country mare. One of the best horse jobbers we ever knew in Massachusetts, (and he was a man of honor,) told me that he sent six mares to a famous Morgan stallion in Vermont, and he hoped that out of the whole six he could get *one* Morgan colt! A pretty commentary on the *surety* of the Morgan blood in transmitting its qualities! But, the Morgans must have their day, as the proverb has it with the dog, and so long as their owners will pay for puffing and advertising, so long will the flunkeys in the world at large contribute to *vive la bagatelle.*

VERMONTER.

REVIEW OF THE JULY NUMBER OF THE AGRICULTURIST.

THE leading article in the July number is *Carrots and Parsnips—Substitutes for Potatoes and Field Crops.*—Field crops, I object to. I am much in favor of root crops for winter-feeding stock, and while disease prevails in potatoes, other roots may well be substituted for them; though I have never found any other roots upon which stock could be fed with the same expense, for the same amount of nutritious food. Substituting roots for other field crops is an error which American farmers often fall into, particularly upon the rich lands of the west. Where corn and oats are not worth more than 15 cents a bushel, and hay two or three dollars a ton, and straw nothing, carrots, parsnips, turnips, or any other roots, are poor substitutes for such field crops. They may, yes, and should be raised in small quantities, as luxuries for the animals, but never as substitutes for those cheaper kinds of food. Here, in New England, we can sometimes feed stock upon roots cheaper than upon any other feed, if planted upon richly-manured and deep-plowed soil—not otherwise.

Pork—Bacon—Ham, No. 4.—I have the same objections to this as No. 3—the directions are all for England and will not be adopted in this country. [All true enough, but we publish these papers to show our farmers how other nations manage; and besides, they will suggest improved methods to them, perhaps.—Eds.] In the first place, there is no difficulty in saving hams from decay and fly blows in the United States, if there is in England. There, they depend upon salt alone; here, smoke is our great preserver of bacon. If the ham is put up in canvass and whitewashed, or even loose cotton bags drawn over it as it hangs, it may continue to hang, and will keep perfectly sweet for years. English instruction to us how to cure bacon we have no use for. [We think differently, if the hams are to be exported to England; for if not put up in their style, they will not give near so much for them.—Eds.] The direction to render lard in water is one that may be followed by those who like it. I never shall, because it is wrong.

Meadow Lands in North Carolina.—Where? Some mistake here. Sow grass in North Carolina? Will it grow there? Yes, after the hogs root up the land in digging up the roots, and work it deeper, and prepare it better than it is usually done by the miserable system of plowing, which generally prevails there. To grow grass anywhere, the land must be tilled, not scratched about two inches deep. Take pattern from the pigs, and plow deeper. Buy better plows, and use them. Sow grass seed, manure the land, and make hay.

Steaming Potatoes.—"The secret of steaming potatoes is very little understood." That is a fact, particularly when cooking for human food. Human ingenuity might be taxed its utmost to invent modes of cooking that would produce as much bad food as the miserable manner in which half the potatoes eaten in this country are cooked. Go dine at a public table and look at the sodden, water-soaked things called boiled potatoes. Not one person in ten knows how to cook this plain, simple dish.

Poultry Raising.—There are some sensible facts in this little article, one of which is that poultry raising is not so very profitable as some fancy breeders would induce us to believe (if we buy our stock from them). This writer says the small varieties are much the best for eggs. No doubt of it. And there is another secret worth knowing. Eggs are sold by the dozen, big or little, generally all of a price. Which will cost the most?

Cultivation of Flax.—What a fortune every farmer can now make, (on paper—flax paper,) if there are not too many *ifs* in the way.

Field Rollers.—A short truthful article. The use of a cast-iron roller, which costs, perhaps, $75, will often pay for itself in the increase of one crop.

Thorough Drainage.—A sentence never understood in America, much more carried into practice; and yet, it would often double the value of the land over and above the cost of the work. Pray, read the last paragraph of that article again. See what draining does for land.

Analysis of Soils.—There is one very remarkable feature in this analysis of Dr. Blake's soil, upon which he had applied 80 bushels of lime to the acre; that is, it only shows 44 per cent. of lime in the soil and 80 per cent. in the subsoil. It shows that there was sufficient lime already in the soil, and that it was useless to apply any. These tables of analysis are highly valuable, and it is truly surprising why farmers do not avail themselves of the cheap facility they now enjoy of having a correct analysis made of soils from the principle fields they have in cultivation.

To Kill Lice on Poultry.—With onions? Who ever tried it? Don't believe it, I don't. [But others do who have tried it. They inform us it often kills them.—Eds.]

Horticultural Department.—Here is an old hand at a new trade. I shall wait a little till I can find what tack he sails worst upon, and then run aboard of him.

Ladies' Department.—Glad to see it again, if it is half chicken feed. Now for pity's sake, Messrs. Editors, don't give us anything more about hens and chickens for three months, at least. Here are three articles upon this subject in one number, which is a little too much for easy digestion. I am fond of chicken, but don't like too much stuffing. [Pray, Master Reviewer, don't you know that the fever is pervading the country, and must have its run?—Eds.]

Review of Professor Johnston's Travels.—Probably very just criticism, but a little too long for your journal, I am thinking.

The World's Exhibition.—The greatest building in the world, covering the greatest humbug ever conceived by any great showman. [Don't be in quite so great a hurry with your opinions, Captain; you will see good results from this yet. Large orders to American mechanics have already been given, and more doubtless, will shortly follow.—Eds.] America has burnt her fingers in it. REVIEWER.

THE SWEET AND SOUR APPLE.

An apple of this variety has been frequently noticed in pomological works, together with sundry reflections upon its origin, and the *cause* of why one part of the same apple should be sweet and another part sour, with divers propositions for the solution of the question. Some, indeed, consider the fact itself apocryphal. Still the apple exists. Thirty years ago, we saw a tree bearing such apples, and ate of the fruit, in Northborough, Massachusetts. It was a graft, and descended, by one or more rumors, according to family tradition, from the original tree of that variety, which originated in Petersham, in the county of Worcester, in that state. And as it may be interesting to pomologists, we give the history of the original tree, as recorded in a book, now out of print: The History of the County of Worcester, by Rev. Peter Whitney, of Northborough, printed in 1793.

In his history of the town of Petersham, the historian remarks: "The land in this place is exceedingly favorable to the growth of all kinds of fruit trees, being high and warm; and here are large and excellent orchards, and much cider is made here, beyond what the inhabitants consume; but they find a ready market for the surplus in the newer settlements. Having mentioned their fine orchards, I would duly notice one very remarkable natural curiosity relative to this subject. There is now growing in an orchard, lately belonging to my honored father, the Rev. Aaron Whitney, deceased, an apple tree, very singular with respect to its fruit. The apples are fair, and when fully ripe, of a yellow colour, but evidently of different tastes, sour and sweet. The part which is sour is not very tart, nor the other very sweet. Two apples growing side by side, on the same limb, will be of these different tastes, the one all sour, and the other all sweet. And what is more remarkable, the same apple will be some sour on one side, end, or part, and the other sweet; and that not in any order nor uniformity; nor is there any difference in the appearance of the one part nor the other. And as to the quantity, some have more of the acid, and less of the sweet, and so *vice versâ*. Neither are the apples so different in their tastes, peculiar to any particular branches, but are found promiscuously on any and every branch of the tree. The tree stands almost in the midst of a large orchard, in rich and strong soil, and was transplanted there about fifty years ago." [Petersham was first settled about the year 1735, and the Rev. Aaron Whitney, father to the historian, was installed as a clergyman, in 1738.—Eds.]

"There is no appearance of the trunk, nor any of the branches having been ingrafted, or inoculated. It was a number of years after it had borne fruit, before these different tastes were noticed; but since they were first discovered, which is upwards of 30 years, there has been constantly the same variety observed in the taste of the fruit of this tree. For the truth of the above account, an appeal may be made to many persons of distinction, and of nice tastes, who have travelled a great distance to view the tree and taste the fruit; but to investigate the cause of an effect so much out of the common course of nature, must, I think, be attended with difficulty. The only solution I can conceive is, that the corcula, or hearts of two seeds, the one from a sour, and the other from a sweet apple, might so incorporate in the ground, as to produce but one plant, or that farina from blossoms of those opposite qualities, might pass into, and impregnate the same seed. But, leaving this to the discussion of naturalists, I proceed with a description of Petersham."

Thus, in the quaint, rich and distinct language of the reverend historian, is given the origin of probably the only tree of the sweet-and-sour apple, from which this singular variety has been disseminated. The tree, and several specimens of the fruit, which we examined, and tasted, was identical with the above description; and it appears that the cause of the peculiar qualities of the fruit was then as difficult of solution as now. The separate flavor of each was pleasant and palatable, but dashed in unequal proportions upon one part or other of the same fruit. One might as well have a cut from two different apples, sweet, and sour in his mouth, at the same time, so far as the enjoyment of flavor was concerned. Of course, the fruit of this remarkable tree was desirable only as a curiosity. Other trees of a similar character also exist in different parts of the country.

The Heaviest Wheat Produces the Best Flour.—It is well known among millers that the strength of flour and its fitness for making good bread is due to the gluten contained in it and corresponds to a considerable extent with the weight per bushel. Hence, in general, the greater the weight per bushel, the better the flour; yet, a low weight per bushel does not always prove a sample to be inferior; on the contrary, a specimen having a high weight per bushel, may frequently be inferior in actual weight; that is, contain less gluten than another kind of wheat of comparatively low weight per bushel.

THE DAIRY QUALITIES OF SHORTHORN COWS.

In some hasty remarks on this subject in a preceding number, we said in relation to the constantly-paraded produce of the Oaks and the Nourse cows, "that we can show in many shorthorn herds, numerous instances of larger yielders whether of milk or butter." We had an impression that many results were on record to verify this assertion, but on recurring to written authorities we found our convictions had been formed upon *oral* testimony rather than the more formal and documentory. But since the Albany Cultivator, in its zeal for upholding the *natives*, has challenged us to the proof, we must call its attention to such brief authority as has, on a moment's investigation presented itself.

Youatt says "that one of Mr. Calvert's shorthorn cows yielded 373 pounds of butter in 32 weeks, during which time she was lame for six weeks from foul in the feet; and that during the height of the season, she gave 28 quarts of milk per day, which, (in a week,) yielded 17 pounds of butter." Had this rate been continued for 52 weeks without deducting anything for the disadvantage of the lameness, she would have given 606 pounds; and without the accident, probably 630 pounds.

The same author gives the yield of what he calls a Holderness, at the Earl of Chesterfield's Bradley Hall Farm, (but which we are assured from one who has visited the place and made particular inquiry on the spot, was a pure shorthorn,) that gave, in the best of the season, 29 quarts of milk per day, from which 38½ ounces of butter were made.

Colonel Powell's shorthorn cow Belina calved in September, 1830, and from about the 20th of that month to the 20th of May following, a period of eight months, she made sometimes as high as 18, and never less than 14 pounds of butter per week, averaging over 16 pounds during the whole of this period. She was dried off as rapidly as possible after May, to recruit, her progeny being of more consequence to her owner than either milk or butter. Here was actually produced 554⅔ pounds in eight months, and at the rate of 832 pounds of butter for the year. The milk from this cow was so rich, that the butter could always be brought by simply stirring the cream with a spoon. This cow yielded 20½ pounds of butter in one week.

Mr. Sheafe's shorthorn cow Lucilla, in June, 1844, gave 337 pounds of milk in one week, which produced 15 pounds, 3 ounces butter. Her food was grass only. See American Herd Book, page 198.

Mr. Vail, of Troy, writes us, that "one of his cows made 52½ pounds of butter in 30 days, and in two days yielded over 92 pounds of milk. Another cow gave 34½ quarts of milk, (wine measure,) in one day, and 19½ pounds of very choice butter in one week. Both of these cows had nothing but grass pasture during the trial, and very ordinary keeping previously."

Thus, a thorough-bred shorthorn produced over 2 pounds, 12½ ounces of butter per day, which rather exceeds the quantity yielded by the Oaks cow, and this, be it remembered, was on *grass alone*. It is true that the trial did not continue so long as that of the latter; but there is no doubt had Mr. Vail given her the same feed as the Oaks cow had, she would easily have beaten her, either on a long or short trial. Mr. V.'s butter was *well worked*, and of the *best quality*. How it was with that of the Oaks cow, the records do not say; but all know, that half a pound of buttermilk can be easily worked out of 2½ lbs. of what some very honest housewives would call good butter.

Colonel Sherwood, of Auburn, has an imported shorthorn heifer, which, at four and a half years old, with her second calf, gave in May last, 14 9/10ths pounds of butter in six days, which is 17 pounds per week. This was on grass only, and before it had acquired its full nutritive qualities, and while still diluted with the thin, exhuberant sap of early spring. On a second trial, she gave 1,111¼ pounds, (say 556 quarts,) of milk, from 20th May to 19th June, which made 60½ pounds of butter. In the July number of the Cultivator, one of the editors says: "We had several opportunities of testing a sample of this butter, and it was of superior quality."

Mr. Francis Bloodgood, of Albany, had an imported shorthorn cow, in 1835, which gave 33½ quarts of milk per day. Mr. Canby's shorthorn cow Blossom, gave an average of 35 quarts per day for a week, yielding 13½ pounds of butter.

Dr. Martin, of Kentucky, owned a shorthorn cow, that, in clover and blue grass pasture, is said to have yielded—the doctor himself being the authority—41 quarts of milk per day for three weeks in succession.

Cyrus P. Smith, Esq., formerly mayor of Brooklyn, N. Y., had a full-blooded shorthorn cow, that, in September, 1841, gave 34½ quarts strained milk in one day, and 34½ and 34 per day subsequently; and for three months in succession, gave not less than 32 quarts per day. From

the 8th of September to the 8th of July following, a period of eight months, including all the winter, the average quantity of strained milk was 27 quarts of per day. The quality of this milk was excellent.

Mr. Schenck, of Matteawan, N. Y., wrote us in October, 1843, that, from his hornless cow—evidently a cross of the shorthorn and Suffolk, the former blood largely predominating—he received 18 quarts of milk per day, from which 15 pounds of butter per week was produced. This was while fed on grass only. Subsequently, she received an injury on her spine and was hardly able to get up, and scarcely survived calving. Yet, in three weeks, she yielded the astonishing quantity of 65½ pounds of best quality of butter, from 16 quarts of milk per day; and on one day, 15½ quarts of milk yielded 3½ pounds of butter. See further on this subject in our last number, page 258, on Mr. Jackson's grade shorthorn heifer and cows.

It must be borne in mind, that to give anything like a fair estimate of the relative merits of the Oaks and Nourse cows and the best shorthorns, that they should be presented for our consideration under circumstances as nearly similar as possible. Within the last 50 years, the demand for the shorthorns has been so large, that every choice cow was kept at breeding exclusively. Their reputation for milking qualities was deemed fully established by every intelligent man, and consequently, trials were not made, nor, if undertaken, were continued only for a short time, and the results generally, were obtained for individual satisfaction, and therefore not published.

On the other hand, the two natives were trained and pampered for their greatest efforts, with the most studied attention, and with every circumstance that would contribute to a successful issue. From the 5th of April, 1846, to the 25th of September, of the same year, the Oaks cow is said to have produced 484¼ pounds butter, or a fraction over an average of 2¼ pounds per day. During this time, she drank her own skimmed milk, was fed all the best grass she could eat, and so crammed with Indian meal, that she broke down under the surfeit; and her subsequent owner, Col. Jaques—the Napoleon among the champions of the *cross breeders*—by the most judicious feeding and management which his own extensive experience could dictate, was unable to resuscitate the overtasked powers of her stomach, and she at once declined below the standard of second class cows. The Nourse cow produced 14 pounds of butter in one week, and 224 pounds in 123 days, which is a little more than 1 pound, 13 ounces per day. The quality and quantity of the feed is not stated.

The result above given, shows they were good cows—so superlatively excellent, that we have little doubt that they were themselves, to some extent, and perhaps *deeply* tinged with the shorthorn blood. It certainly has never been shown that they were not. The result proves another thing, that these were *exceptions* to the *natives*, not the rule. We hear of no others approximating to the merits of the Oaks cow, nor do we hear anything of their progeny. This is one of the grand faults of the natives—*unbred* animals, of every kind, you cannot depend on, or at all rely upon their progeny. An intelligent breeder of choice imported milkers, has just informed us of his purchase of half a dozen heifer calves at large prices, from very superior native milkers; and yet, he did not get a superior cow out of the entire lot, while his calves from his well-bred animals, invariably produced him choice milkers.

If the *general* results of *nativeism* is such as shown by these specimens, we should say breed natives, and let all others alone. But when they are adduced as the models, and as standing far in advance of all others—when they may have derived their paramount excellence from a shorthorn ancestry; and especially when we see the shorthorn crosses sought out by every intelligent person as being the best dairy stock, we say the dairy interests of the country demand that we should advocate the introduction of this breed. If we add to this, the fine forms, quiet habits, docile temper, early maturity, the rapid fattening qualities, and the extraordinary improvement immediately realised by crossing the thorough-bred shorthorns upon our native cattle, we should deem ourselves as derilict to our trust, if we omitted, on all proper occasions, to commend them to the favorable regard of the American public.

As the Massachusetts and some other agricultural papers, have so often treated their readers to the *superlative* merits of the Oaks and Nourse cows, we deem it only common justice to the shorthorns to suggest to them the propriety of copying the foregoing.

Land is like the heart of man—some naturally better, some worse—all imperfect, and requiring much study and cultivation.

The Three First Men in the World—the gardener, the husbandman, and the grazier.—*Cowley.*

Horticultural Department.

BY L. F. ALLEN.

HOW TO LAY OUT A KITCHEN GARDEN.

As many of our suburban friends, as well as practical farmers, will, in all proability, this coming autumn, lay out a permanent kitchen garden—which, by the way, is a very important affair—we propose to say a few words on the subject.

A kitchen garden yields more necessaries and comforts to the family than any other piece of ground on the premises. It is, of consequence, necessary that it be so located and planned as to be ready of access, and yield the greatest possible quantity of products for the amount of labor bestowed upon it; and as locality and plan have much to do with both the labor bestowed upon it and the productions it may yield, both these subjects should be considered.

As to locality, the kitchen garden should lie in the *warmest* and *most sheltered* spot which may be convenient to the *kitchen* of the house. It should, in connection with that, be convenient of access to the dung yards of the stables. The size may be such as your necessities or your convenience may demand. The shape, either a parallelogram or a square; for it will be recollected that this is a plan allotted, not for a *show* or *pleasure* ground, but for *profit*. If the garden be large, this I hope will better allow the use of the plow to turn up the soil, which, in a large garden, is a much cheaper, and when properly done, a better mode, than to spade it; and if small, and it be worked with the spade, *right* lines are easier made with the spade than curved ones. One or more walks, at least eight feet wide, should be made, leading from a broad gate or bars, through which a cart and horse, or oxen may enter, to draw in manure, or carry out the vegetables; and if such walk or walks do not extend around the garden, which, if in a large one, they should do, a sufficient area should be thrown out at the further extremity to turn the cart upon. If the soil be free and stony, the stones should be taken out *clean*, when large; and if small, down to the size of a hen's egg, and the surface made as level as possible, for a loose soil will need no draining. If the soil be a clay or clayey loam, it should be underdrained two and a half feet deep, *to be perfect*, and the draining so planned as to lead off to a lower spot outside. This draining *warms* the soil, opens it for filtration, and makes it friable. Then, properly fenced, thoroughly manured, and plowed deeply, and left rough—no matter how rough—in the fall of the year, and as late before the setting in of winter as you dare risk it, and that part of the preparation is accomplished.

The *permanent* or wide walks of the garden, after being laid out and graded, should never be plowed nor disturbed, except by the hoe and rake, to keep down the weeds and grass; yet, if a close, and well-shorn grass turf be kept upon them, it is perhaps the cheapest and most cleanly way of keeping the walks. They need only cutting off close with the hand hook in summer.

We have known a great many people, after laying out a kitchen garden, and preparing it for use, fill it up with fruit trees, supposing that vegetables will grow quite as well with them as without. This is a great mistake. *No tree larger than a currant or gooseberry bush should ever stand in a vegetable garden.* These fruits being partially used in the cooking department, as much in the way of vegetables as fruits, and small in size, may be permitted; and they, contrary to the usual practice, should always stand in *open* ground, where they can have all the benefits of sun and rain to ripen the fruit to perfection, as well as to receive the cultivation they need, instead of being placed under fences around the sides of the garden, where they are too frequently neglected, and become the resort of vermin, or make prolific harbors for weeds.

Along the main walks, or alleys, the borders for perennial plants, as well as the currant and gooseberry bushes, should be made, for the plow should run parallel to, and not at right angles with them. Here may stand the rhubarbs, the sea kales, the various herbs, or even the asparagus beds, if a particular quarter be not set apart for them; and even, if it be important, a portion of these main borders may be appropriated to the more common flowers and small shrubbery, if desired to cultivate them in a plain way; but not a peach, apricot, nor any other larger tree than a currant or raspberry should come within it. They not only shade the small plants, but suck up and rob them of their food and moisture, and keep off the sun, and prevent the circulation of air, than which nothing needs all these more than garden vegetables, to have them in high perfection. If it be necessary, by means of a cold exposure on one side, to have a close plantation of shrubbery to screen the garden, let it be *outside* the fence rather than within it; but if within, let there be a *broad* walk between such shrubbery and the garden

beds, as their roots will extend under the vegetables, and rob them of their food.

A walk, alley, or cartway on the sides of the garden is always better *next to the fence* than to fill that space with anything else, as it is usually shaded for a portion of the day, and may be better afforded for such *waste* purposes than the open, sunny ground within.

It will be observed that *market gardeners*, men who always strive to make the most profit from their land and labor, and obtain the *best* vegetables, cultivate them in open fields. Not a tree, nor even a bush is permitted to stand near the growing crop, if they can prevent it; and where one is not stinted in the area of his domain, their example should be followed.

A word upon *plowing* gardens. Clays or clayey loams should always be manured and plowed in the fall just before the setting in of the winter frosts. A world of pounding and hammering of lumps to make them fine in spring is saved by fall plowing, besides incorporating the manure more thoroughly with the soil, as well as freezing out and destroying the eggs of worms and insects which infest it. Thrown up deeply and roughly with the plow or spade, the frosts act mechanically upon the soil, and slack and pulverise it so thoroughly that a heavy raking in early spring is all that becomes necessary to put it in the finest condition for seeds, and make it perhaps the very best and most productive of all garden soils whatever. A light sandy loam is better to lie compact in winter, and manured and turned up in early spring. Its friable nature leaves it always open and light, and at all times in the absence of frost, accessible to the spade or the hoe. On these accounts, it is usually the most desirable and convenient soil for the kitchen garden, and on the whole, generally preferred where either kind may be a matter simply of choice.

REVIEW.

THE FRUIT GARDEN; by P. Barry, of the Mount-Hope Nurseries, Rochester, N. Y.

Mr. Barry has written a good book. We say written—because, like too many efforts of this kind, this is not a compilation of the writings of others, solely—but an *arrangement* of the entire subject of fruit culture, from the seed to the bearing tree, the growing of the fruit, picking, and packing for market, &c., &c., in a concise, perspicuous, and plain manner. At this period in the science of pomology, it is difficult for any one to write an *original* treatise on the cultivation of fruits or fruit trees. The science of vegetable physiology is in a degree as old as Pliny or king Solomon; and with the discoveries which have been made within the last two centuries of the properties of fruit-bearing trees, their habits, and *capabilities*, we have at the present moment a mine of exceeding wealth, into which the pomologist and vegetable physiologist only have to explore to dig up most brilliant and valuable practical treasures.

Until within the last 15 or 20 years, fruit culture, as an object of pursuit, or a subject for scientific inquiry in America, stood *nowhere*. In and about New York, Old Mr. William Prince and Mr. Bloodgood, of Flushing, were the "Court of Appeals" on all pomological questions; and Michael Floy and Mr. Hogg, who lived somewhere up the Bowery, were the chief florists of the day, while the old friend of our boyhood, Laurie Todd, of Grant-Thorburn memory, from his little walled garden and quaint old shop in Liberty street, furnished all the pots, flowers, garden seeds, and *posey* seeds, that the people of this extensive neighborhood required. The late Andrew Parmentier, who near 30 years ago emigrated from France, and established a nursery in Brooklyn, gave perhaps the first *new* impulse to extensive fruit and ornamental tree planting in this region of the state. He had an extensive and well-selected nursery where now stands a compact part of that city, and for a few years prosecuted a flourishing business. He introduced the subject of landscape gardening to the attention of our suburban citizens, and wrote and published many valuable hints on plantations in ornamental grounds. After a residence of only a few years, Mr. Parmentier died. No surviving member of his family inclining to carry on the nursery, and a demand for his extensive grounds for town lots springing up, the establishment was broken up and sold, and the grounds devoted to building purposes. Since then, new nurseries both of fruit and ornamental trees have sprung up and been enlarged, not only in the neighborhood of New York, but extended into other parts of the state, even the most remote, in great numbers; and at this time, hardly a county in the state but may boast of one or more extensive nurseries, with large assortments of fruit and ornamental trees, flowering shrubs, and plants of great variety, suited to the climate.

All these show a rapidly increasing taste and demand throughout the country. With their cultivation, has the demand also increased for books of instruction touching their propagation, cultivation, and treatment. We never shall

forget, when a boy, the absorbing interest we took in poring over "Forsyth's Treatise on Fruit Trees," an English work, quite tolerable for its day, but now out of print, and hardly ever referred to, except as an obsolete authority. Kenrick, of Boston, or its neighborhood, was the first American author who compiled a book on fruit trees, and their culture, to any extent, and with anything like a system of classification, and a thorough description of the various fruits and plants embraced in it. This, together with a volume by Manning, of Salem, and other small works by Prince, Coxe, and Floy, of New York, anwered the public demand for some years.

In 1845, Mr. A. J. Downing of Newburgh, on the Hudson, then a professional nurseryman, a man of fine taste and extensive acquirements in tree knowledge, published his large work on the "Fruits and Fruit Trees of America," which had a rapid sale, and up to this period has run through several editions. Mr. Downing's work was at once acknowledged as high authority, and gave a rapid impetus to fruit culture throughout the country. But improvements have grown apace. New fruits have been introduced from abroad—not *always* to an advantage, however—still valuable for trial and experiment, and new modes of training and culture have been introduced with them, particularly from France and Belgium. Some two years ago, Mr. John J. Thomas, of Macedon, New York, an experienced nurseryman and cultivator, published "The American Fruit Culturist," principally on the plan of Downing's, but with some new matter, and more recent modes of cultivation, and descriptions of some new varieties of fruits. This also is a valuable book, and has met, as we think deservedly, with an extensive sale. "Cole's Fruit Book," also, a Boston work, on the *cheap* plan, is valuable to one who is willing to half understand his business, and remain content with what knowledge he can glean out of a half-price book.

All these works indicate that our public taste is rife with inquiry and a seeking after both fruit and tree knowlege, with an intent, too, at their cultivation in a matter-of-fact way. With all these varied authorities before us, we are now greeted with Mr. Barry's book. The method of his work is somewhat new in its treatment of the subject, and we think in that particular department, and in that alone, perhaps, more valuable than either of its predecessors. Indeed, the bulk of his volume is expended on the *principles* and *constitution* of the fruit tree; its several parts, from root to branch, bud, leaf, and flower are analysed, dissected, and described minutely; and the various modes of propagation, prunning, planting, and training, elaborately examined, and discussed. We cannot say that Mr. Barry has made *new* discoveries. Yet he has introduced some new *foreign* information relating to certain kinds of tree culture, particularly to *dwarf* fruits, a subject now attracting much attention here, as it has for many years abroad. Soils, manures, orchards, their position, and the various minutiæ attending successful fruit-growing are treated of as usual with the other books—but with distinctness, good judgment, and practical familiarity. Brief notices and descriptions of the best and most approved *standard* fruits of the various kinds are included, but not with the particularity which would give the reader that intimate knowledge of them and their habits which either the volumes of Downing or Thomas would do.

It is so common a thing for one to suppose that any one *approved* single author is all that is necessary to guide him in his operations upon any distinct subject of cultivation, that we are frequently led into error in some one or other branch of our industry, simply from not looking beyond the authority we happen to have at hand. This is a great mistake. Neither the ideas nor tastes of any two individuals of the same profession run in a like current. One indulges his best for propagation chiefly—another gives his labor to pruning. Another to diseases, their origin, and remedy. A fourth exults in his skill in planting and perfecting his trees for their ultimate harvest; while a fifth riots in the luxury of his well-ripened fruits, and gloats over his victory in the orchard. An author whose taste prodominates in either of these particulars, is apt to give the views full play on his favorite subject, and but slightly discuss the others, which are of equal importance to the student, whose labors are to embrace the whole subject. It is better, unquestionably, that such variety of taste and treatment exist, to obtain the sum of knowledge which is required; and it is only by a consultation of all that one can become really informed, and accomplished in a knowledge of all.

Mr. Barry's book comes under these general remarks. To some subjects he has given less attention than a *full* and *elaborate* treatise would include. Some unsettled questions he has prudently avoided, or but slightly touched, preferring rather to play *non-committant*, than to stir

up contention where he was in doubt. Much has yet to be learned in fruit cultivation in America. Our country is young, hardly out of its swaddling clothes on many subjects, and a wide field yet remans for examination in its different soils, climates, and aspects; but all full of rich promise in the future. And as we write for those extended far and wide throughout the United States, we recommend to all who would be proficient in the cultivation of fruits, the several treatises of Downing, Thomas, and Barry, in each and all of which, they will find valuable, interesting, and indispensable matter for their government and practice as successful pomologists.

One general remark before we close. No one authority can be relied upon to govern the applicability of a *given* variety of fruit to *all* places alike. Climate, position, soil, locality have to be consulted in determining what varieties of the different kinds of fruit had best be cultivated. Experience, oftimes a tedious and expensive schoolmaster, must be consulted. Already have the highest authorities, and the best fruits in certain sections of the country been obliged to be discarded from their want of adaptation to some one or other prominent deficiency of soil, climate, or otherwise, in the position to which they were introduced, and local fruits sprung up and became congenial to the soil and locality, themselves been substituted. It will, consequently, be a long time before a perfect manual of fruit culture can be made for all sections of the United States. But we shall hail with true pleasure every new and fresh treasure from the prolific pens of our orchardists and cultivators, who shall, from the stores of their experience and knowledge throw additional light on a subject which is destined to become and remain, a permanent and valuable branch of our national industry, as well as a most delightful object of domestic industry and enjoyment. Mr. Barry's book is published by Charles Scribner, Park Row, New York.

STRAWBERRIES.

After they have finished bearing, where cultivation in distinct hills is pursued—and that is the best for garden culture, or when only a family bed or two are kept—the runners should be cut off and the soil well stirred to strengthen the roots for next year's bearing. A solution of guano water should be occasionally sprinkled over them; and if on light soils, leached ashes and clay mixed with the mould they occupy. A strong, rich clayey loam is the very best soil for strawberries. On light sandy soils, the fruit is apt to be small, imperfect, and wanting flavor. If the plants be past three years old, either prepare a new bed of fresh earth, or let new runners strike between the old plants where the future stools should stand. When so struck, spade in the old stools, which will make a partial manure for the young plant. August is the time to plant out and establish strawberry beds when not done in the spring. If the weather be dry, throw the young plants into water just before setting them, to freshen them for striking immediately. Let the *setting* plants be *young*, from *new* runners, having vigorous *white* roots. Old plants have black roots, which are not so good, and are hard to strike. If the weather continues dry after planting, water each plant with half a pint of water, if you can. For garden culture, plant in rows two feet apart, and eighteen inches in the row. For field culture, set in rows three feet apart, at eighteen inches between the plants. They may be allowed to run together or not as your opportunity for cultivation, the size of the fruit required, and the market price of it may determine. Good, fresh, sod land, newly turned over and plowed deep, is the best, being clean, which demands less labor than old-cultivated and manured soils. When the young roots begin to feel the decomposing sod below, they rejoice and spread, and throw out such tops as will delight you, full of the finest fruit the coming spring, and repaying you for all your labor.

Preparation of Soil for Flowers.—People do not always consider that good fresh, well-mixed, pulverised soil is as necessary for the fullest development of flowers, in all their beauty and fragrance, as for the production of fruits and vegetables. Fresh soil made of sods, compost, &c., is perhaps, the best for *upland* plants. The native locality of our finest flowers is usually in a deep, cool soil, (not cold and clammy,) partially shaded by surrounding plants; and such a soil they always love. We have seen the bloom of a plant increased double in size and number by an addition of fresh soil to the roots, and a sharp heading in of the branches—roses particularly so. All flowers indeed, when branching, require the knife as well as the compost heap, to develope their beauties in perfection.

Guano Water.—Half a pint of Peruvian guano, dissolved in six or eight gallons of water and applied as circumstances require, has been found of service to many kinds of flowers.

Ladies' Department.

PLEASURES OF THE TABLE—STEWED PEA SHELLS.

In describing cheap pleasures, Dickens, in his "Household Words," wisely and honestly enumerates those of the table, and descants on the cheap luxuries of the poor and middling classes of Germany, and in which he could scarcely recognise the miserable, ill-dressed, watery dishes of garden stuff that he met with at home.

Speaking of these pleasures as one of the important matters of life, when moderately indulged in, (and here Dr. Johnson agreed with him,) he observes, "that in the present constitution of our code of cookery, eating is the most expensive of our amusements. This arises mainly from our neglect of vegetables. About the middle of last summer, at Kreuznach, we partook of a certain dish at the *table d'hote*. It was delicious; some titled English travellers were present, who seemed equally charmed. Curiosity was awakened. What could it be? The German gentleman in waiting, napkin in hand, was despatched on a special mission to the *Chef de cuisine*, to know what we had been eating; after remaining some five minutes in suspense, the receipt was revealed. It was a dish of pea shells, stewed in butter, with a sprinkling of savory herbs. Pea shells are the ordinary diet of pigs on this side of the channel; but in Germany, a little skill, a little butter, and a little herb remove them from the sty to the best dinner tables. 'The capacities of vegetables are mournfully misunderstood, Sir, in England!' said a plethoric old gentlemen next to us, who had already been fed by our cookery within a beef steak of two of apoplexy. 'Look at me, Sir! You never see a foreigner in such a state as I am; but what with light wines, and this kind of thing, (swallowing a mouthful of pea shells,) I hope to get better.'"

SIMPLICITY OF DRESS.

Female loveliness never appears to so good advantage as when set off with simplicity of dress. No artist ever decks his angels with towering feathers and gaudy jewelry; and our dear human angels, if they would make good their title to that name, should carefully avoid ornaments which properly belong to Indian squaws and African princesses. These tinselries may serve to give effect on the stage or upon a ball-room floor, but in daily life, there is no substitute for the charm of simplicity. A vulgar taste is not to be disguised by gold and diamonds. The absence of a true taste and real refinement of delicacy cannot be compensated for by the possesion of the most princely fortune. Mind measures gold, but gold cannot measure mind. Through dress, the mind may be read, as through the delicate tissue, the letter page. A modest woman will dress modestly; a really refined and intellectual woman will bear the marks of careful selection and faultless taste.—*Exchange.*

Blackberry Syrup, made after the following recipe, is a very valuable medicine for summer complaints of children, and if used as a medicine, *only*, the brandy is not objectionable:—Take two quarts of juice of ripe berries, and boil in it one half an ounce each, of nutmeg, cinnamon, and allspice, and one quarter of an ounce of cloves, all powdered; strain and add one pound of loaf sugar and one quart of the best French brandy, and bottle and seal up. Dose for a child, two or three teaspoonfuls once in three hours.

A Very Good Plain Soda Cake.—Take three cupfuls of flour, one cupful of sugar, one egg, one tablespoonful of butter, two teaspoonfuls of cream of tartar, one teaspoonful of soda, one teaspoonful of essence of lemon, and one cupful of sweet milk. Beat the egg, and mix it with butter and sugar, and soda dissolved in the milk. Add two cupfuls of flour; then mix the cream of tartar, dry with the other cupful of flour, and add that to the other, and roll out and bake at once in flat pans.

To Make Preserves Keep.—Of course, you will make them this month. The secret of preserving them from change is to exclude the air. The easiest way to do this is, to brush over a sheet of paper with the white of an egg, and cover the jar, pressing it down around the edges while moist, and it will cement perfectly tight. It is cheaper, neater, and better than sealing up the mouth of the jar with wax, or covering it with bladder.

Mildew in Books.—Take a feather dipped in spirits of wine, (alcohol,) and slightly wash over the backs and covers. To prevent mould, put a little into writing ink. To take mildew out of linen, mix powdered starch and soft soap with half the quantity of bay salt; mix vinegar, and lay it on both sides with a painter's brush. Then let it lie in the open air till the spots are out.

Foreign Agricultural News.

By the steamer Canada, we are in receipt of our foreign journals to the 9th of August.

Markets.—*Ashes*, lower. *Cotton*, an advance of ¼*d.* per pound. *Flour and Grain*, heavy sales. *Provisions*, generally dull.

Proportion of Carbonic Acid Endured by Healthy Plants.—The result of the late investigations of Dr. Daubeny, of England, prove that 10 per cent. of carbonic acid is not at all injurious to plants, and that it is some time before even rather larger proportions of that gas begin to produce bad effects. Even as much as 20 per cent. produced no injury in ten days.—*Gardeners' Chronicle.*

Cost of the Conveyance of Sewerage Water.—It is calculated by experienced engineers, that sewerage water may be raised by the steam engine 150 feet, and forced through iron pipes in the way the supplies of water are brought to most large towns, and thus conveyed and sold with a profit at 2½*d.* the ton, after being conducted in this manner 14 miles.—*Agricultural Gazette.*

Bone Manure Consumed in England.—England consumes more bones, for agricultural purposes, than all the rest of the world. As bones gathered for this purpose in Great Britain are free from police or excise inspection, we have no means of ascertaining the amount of the home supply; but the official value of those imported amounted, some 12 years ago, to $1,500,000 per annum, and the selling price to our farmers would probably be little under $2,000,000. Since then, the foreign supply has been decreasing; the bones imported in 1848 being worth, in bone dust at 31 cents per bushel, about $1,100,000.—*Scottish Jour. of Agriculture.*

Increase of the Use of Guano in England.—The imports of guano rose from 2,000 tons in 1841, to 220,000 tons in 1845; but since then, the paucity of the supply has caused the average annual importation to fall to about 90,000 tons. It will give some idea of the energy and enterprise of our farmers to state that as the price of guano has ranged from $30 to $50 per ton, the money expended on the purchase of this manure alone amounted, in 1845, to the enormous sum of a million and a half sterling.—*Ibid.*

Depôts of Lime and Gypsum for Farmers.—The Belgian government, having established depôts in different places throughout Luxemburg and Namur, for supplying lime to the farmers of those districts, in which it had been very difficult for them to obtain that earth, for the improvement of their land, have, by a further measure, ordered the establishment of depôts of gypsum in different parts of Flanders for the same purpose, a substance which, although most cheap and abundant in France, is not found naturally in Belgium, in any working quantities.—*Ibid.*

Re-appearance of the Potato Disease in Ireland.—Reports concerning the re-appearance of the potato disease have again become rife. Irish newspapers, in particular, speak of unmistakeable evidence having been obtained of the renewal of the plague spot; and our own correspondents have, here and there, announced the same fact. That we should see such symptoms for some years to come is the least that can be expected; for a disease like that in question is not likely to disappear as rapidly as it came on. But we are happy to be able to allay such apprehensions as exist, by stating that after diligent inquiry we can hear of nothing which ought to excite alarm; and that we believe the crop to be just as safe as it was last year.—*Ag. Gazette.*

Grape Mildew in France.—M. Bergman, junior, gardener to Baron James de Rothschild communicates the following to the editor of the London Gardeners' Chronicle:—"I beg to send you a specimen of the kind of mildew which has infested vines both in houses and in the open air, in the vicinity of Paris during these three years past, and principally in the gardens of Versailles, Suresne, and Ferrières. In these places, all possible means have been employed to avert the malady, but without success. Sulphur, tobacco smoke, tar water, and lime water, have been used, but the parasite makes new progress every day, and the grapes are rendered uneatable. I hope you will be able to furnish us with some new expedient for combating the epidemic. [You had better provide yourself with one of the modern sulphurators. Sulphur applied early enough, and presevered in, is a certain cure in this country. But you must persevere, and you must attack the enemy when he first appears."—Eds.]

The Supply of Peruvian Guano.—The agency in London have just published an account rendered by Messrs. Antony Gibbs and sons, to Messrs. Rivero and Murrietta, the commissioners for the Anglo-Peruvian debt, of the quantity of guano sold in this country. It appears from this that the total imports have been 130,580 tons, of which the sales already accounted for have been 50,233 tons, the sales subsequently effected and to be accounted for hereafter have been 37,661 tons, and the stock on hand unsold on the 30th June, amounted to 42,686 tons. In the 50,233 tons sold the proceeds have been £212,546 7*s.* 3*d.* giving an average of £4 4*s.* 7½*d.*, the price to be received for the 37,661 tons of which the sales have been subsequently effected. The result of these returns is, that £107,200, being half the net proceeds, after deducting the amounts paid for former dividends, has been applied to the reduction of the Peruvian debt. The report of the agents states that "the quantity of guano which will have arrived within the ensuing 12 months will not be less than 150,000 tons; that the demand for the guano is not only increased in this country, but also in all other parts of the world; that the guano on the Chincha Islands is inexhaustible, and from the peculiar nature of these rainless islands it is not likely that any other guano will be discovered elsewhere retaining the ammonia, which constitutes the pre-eminent value of Peruvian guano."—*Agricultural Gazette.*

Editors' Table.

TIMES OF HOLDING ANNUAL SHOWS AND FAIRS.—The following indicate the times and places the annual shows and fairs of several State and County Agricultural Societies are to be held in various parts of the United States:—

Fair of the American Institute of New York—

October 1st, the fair at Castle Garden will be open to visitors at 8, A. M.

October 6th. Special exhibition of dahlias and roses at Castle Garden.

October 7th. Testing of plows at White Plains. Committee will be on the ground at 10, A. M.

October 8th. Plowing and Spading Match at White Plains. Committee will be on the ground at 10, A. M.

October 15th, 16th, and 17th. Cattle Show at Madison Cottage, corner of Fifth avenue and Twenty-third street. Entries may be made on the 13th, 14th, and 15th, on the ground, or at any time previous, by addressing A. Chandler, Corresponding Secretary, 351 Broadway.

October 16th. Anniversary address, in the evening, by Dr. Charles T. Jackson, of Boston, Massachusetts. Tickets gratis. To be had at the Garden, or from any of the managers. Due notice of the hour and place will be published.

New-York State Agricultural Society, at Rochester, September 17th, 18th, and 19th.

Rhode-Island Society for the Encouragement of Domestic Industry, and the Rhode-Island Horticultural Society, at Providence, September 10th, 11th, and 12th.

Vermont State Agricultural Society, at Middlebury, September 10th and 11th.

Ohio State Agricultural Society, at Columbus, September 24th, 25th, and 26th.

Pennsylvania State Agricultural Society, at Harisburgh, October 22d, 23d, and 24th.

Georgia State Agricultural Society, at Macon, October 29th, 30th, and 31st.

Maryland State Agricultural Society, at Baltimore, September 23d, 24th, 25th, and 26th.

Oneida-County (*N. Y.*) *Agricultural Society*, at Utica, September 9th 10th, 11th, and 12th.

Saratoga-County (*N. Y.*) *Agricultural Society*, at Mechanicsville, September 9th, 10th, and 11th.

Chenango-County (*N. Y.*) *Agricultural Society*, at Norwich, October 1st and 2d.

Westchester-County (*N. Y.*) *Agricultural Society*, at White Plains, October 7th, in connection with the Plowing Match of the American Institute.

Burlington-County (*N. J.*) *Agricultural Society*, at Mount Holly, October 8th.

Essex-County (*N. J.*) *Agricultural Society*, at Elizabethtown, September 17th and 18th.

Philadelphia-County (*Pa.*) *Agricultural Society*, at Philadelphia, October 8th and 9th.

Worcester-County (Mass.) *Agricultural Society*, at Worcester, September 18th. Exhibition of the Worcester Horticultural Society and the Mechanics' Association, on the same day.

Clermont-County (*Ohio*) *Agricultural Society*, October 2d, 3d, and 4th.

Lexington (Ky.) *Fair*, at Lexington, September, 9th and 10th.

Bourbon-County (*Ky.*) *Fair*, September 24th and 25th.

Fairfield-County (*Conn.*) *Agricultural Society*, at Bridgeport, October 8th, 9th, and 10th.

In addition to the usual premiums for plowing, P T. Barnum, Esq., President of the society, with great liberality, offers additional premiums, amounting to $200, the highest of which is $50, open to plows and teams from every state in the Union. This will be a capital opportunity for the plow makers of the United States to show their hands.

THE COTTAGE BEE KEEPER; or Directions for the Practical Management of Bees; by a Country Curate. Published by C. M. Saxton, agricultural book publisher, 152 Fulton street, New York. This little work only need be seen to be appreciated by every cottage or country resident; for it gives him such plain and practical directions how to manage this most profitable and pleasant adjunct to a rural residence, that he need never be without that most delicious luxury upon his table —a clean, pure, glass cup of honey. The work is done up in the same neat style of all the late publications, denominated "Saxton's Cottage and Farm Library."

A BOOK FOR EVERY BOY IN THE COUNTRY; ELEMENTS OF AGRICULTURE, translated from the French by F. G. Skinner; published by C. M. Saxton, American agricultural book publisher, 152 Fulton street. Price 25 cents. All that is necessary to say to recommend this work, is to assure our readers it is exactly what the title imports, and should be placed in the hands of every American boy, whether designed for an agriculturist or not; for it will give him an easy insight into the elements of agriculture.

THE JOURNAL OF AGRICULTURE; William S. King, editor, J. J. Mapes and Allen W. Dodge, associate editors. Published on the first and third Wednesday of every month, 32 pages, double columns, octavo. Price $2 a year. Office at Horticultural Hall, 38 School street, Boston, Massachusetts, where exchange papers should be sent. Correspondents should direct to William S. King, P. M., Manton, R. I. In the above work, the editors aim to establish an agricultural periodical of a higher order and more scientific character, than any heretofore published in the United States; and the better to insure this great desideratum, in addition to their own pens, they have secured those of Dr. C. T. Jackson and other eminent men. A work of this character is much wanted in our country, and if conducted with fearless ability, may do great good to the farming interest. We have received two numbers of this periodical, and find them lively and spirited, and replete with good matter. We particularly like the tone of the first of a series of articles on Agricultural Education. We shall take pleasure in forwarding subscriptions for the above work.

NEW-YORK CATTLE MARKET.

At Market.—2,300 Beeves, (southern and western,) 113 Cows and Calves, and 8,500 Sheep and Lambs.

Beef Cattle.—Prices do not vary materially from our last. Good qualities sold from $5.50 to $7.50 per hundred pounds.

Cows and Calves.—All sold at from $22 to $42.

Sheep and Lambs.—Sales of Sheep at from $1.37 to $4.50. Lambs at from $1.25 to $4. 800 unsold.

To CORRESPONDENTS.—Communications have been received from Watson G. Haynes, T. B. Miner, Subscribers and Readers, Joseph U. Thomas, S. W. Jewett, J. Donavan, A. L. Elwyn, Henry L. Smith, Sidney Weller, Wm. H. Hart, and S. Clark, Jr.

ACKNOWLEDGEMENTS.—Samples of soil for analysis from Henry L. Smith, and Dr. E. F. Peck.

SUPERIOR SEED WHEAT.—A large assortment of the best varieties of improved seed wheat, among which are the Golden Australian, China or Troye, White-Flint, Hutchinson's Improved, Soule and Mediteranean.

Turnip Seed.—The Early Flat Dutch or Spring, Early Red-top Flat Strap-leaved Red-top Flat, Strap-leaved, White Flat, Early Garden Stone, Large English Norfolk, Pomeranian, White Globe, Large Flat, Long White or Cow Horn, Long Tankard or Hanover, Yellow Stone or Orange, Yellow Aberdeen or Bullock, Long Yellow French, Dale's Hybrid.

Seed Rye of the best winter variety; also, a cheaper kind, suitable for late fall and early spring pastures.

au A. B. ALLEN & CO., 189 and 191 Water st., N. Y.

SHORTHORN BULL CALVES.—For sale, two very superior thorough-bred shorthorn bull calves, got by the superb imported bull Exeter, out of two of Mr. J. F. Sheafe's great milking cows. Exeter is of the Princess tribe of shorthorns, and was bred by Mr. Stephenson, of Durham, England, and imported by Mr. Sheafe. The dams of these bull calves are celebrated milkers. For a particular account of Exeter and these cows, see the last volume of the Agriculturist, and page 151 of the present volume. Mr. Jackson, of Astoria, has a young bull, dropped last August, got by Exeter, out of one of Mr. Sheafe's cows, whose superior we do not believe was ever produced in the United States; and these calves now advertised for sale, we think equally promising.

au A. B. ALLEN & Co., 189 and 191 Water st., N. Y.

VALUABLE FARM FOR SALE in the town of Conchin, Broome county, state of New York, containing 300 acres, with a large brick house, barn, hay houses, carriage houses, wood house, and all other necessary buildings, elegantly situated, fronting the New-York and Erie Railroad and Cochecton Turnpike, and Susquehanah River, three miles from the Great Bend Depôt, two miles from Kirkwood Depôt, and 58 miles from Binghampton, well proportioned for wood, meadow and grain land. An orchard with grafted fruit, well watered, and is one of the best farms in the town of Conchin. For further particulars apply to JOSEPH CONCHIN, near the premises, or
EDWARD WAIT, Montgomery Co., N. Y., or
au MILTON McEWEN, Warwick, Orange Co., N. Y.

AN IMPROVED FARM FOR SALE.—This farm of 69 acres lies in Rochester, Ulster Co., New York, a drive of two hours connects it with the Hudson River, at Roundout. The Delaware and Hudson Canal passes through the premises, thus affording a better market for farm produce at the door than can be obtained in the city of New York. The house and outbuildings have been thoroughly repaired during the past year, which, together with the farm, are now in excellent condition. The premises are well watered, and contains thereon an excellent apple orchard of 100 trees, of 10 years' growth. Extensive beds of limestone abound in the immediate vicinity, from which good lime is manufactured, and sold at from three to five cents per bushel, thus affording facilities unequalled for improving the soil. Extensive flour and plaster mills are located at the High Falls, three miles distant from the premises. In connection with the above, a wood lot of 100 acres will be sold at a reduced price. Price of improved farm, $4,800. Terms.—One third of the purchase money upon the execution of the deed—the balance can remain on bond or mortgage for five years.

au ASA SNYDER, Rochester, Ulster Co., N. Y.

DRAIN TILES.—The Staten-Island Drainage Tile Company are now prepared to supply agriculturists with the above-named tiles of the most approved patterns.

2-inch round pipes, one foot in length, per thousand,	$ 9		
2½ Do.	Do.	Do.	10
3 Do.	Do.	Do.	12

and pipe and horse-shoe tiles of all sizes, at corresponding prices.

The establishment is at Latourette's Point, Fresh Hills, near Richmond, Staten Island, and boats drawing four feet of water can enter the yard, and load from the kilns. Address

jytf A. B. ALLEN & Co. 189 and 191 Water st. N. Y.

A. G. BAGLEY & Co., manufacturers of gold pens, gold and silver pen and pencil cases, ivory and tortoiseshell holders, and patentees of the celebrated extention cases, No. 189 Broadway, New York. ju tf

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PRINCE'S LINNÆAN BOTANIC GARDEN and Nurseries.—Wm. R. Prince & Co., Flushing, Long Island, offer their select and unrivalled collection of fruit and ornamental trees, shrubbery, roots, bulbous and other flowering plants, pæonies, and greenhouse plants. The stock of standard and dwarf pears, and of all other fruit trees, is very extensive. 100,000 evergreen trees comprising every variety. 25,000 roses of the finest perpetual, daily and moss varieties. 100 splendid varieties of pæonies, all the new and superior strawberries. 10,000 grape vines of the finest kinds. Descriptive catalogues with reduced prices will be sent to post-paid applicants. s2t

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PREMIUM STRAWBERRIES, Wm. R. Prince & Co., Linnæan Garden and Nurseries, Flushing.—The present is the proper period for planting beds for next summer's crop. The collection is unrivalled, and comprises the following:—Profuse Scarlet, Charlotte, Primate, Primordian, Crimson Cone, Crimson Pine, Hovey's Seedling, Burr's new Pine and his other varieties, Large, Early Scarlet, Richardson's Early, Late, and Cambridge; Iowa, Black Prince, Taylor's Seedling, Lizzie Randolph, Eustatia, Boston Pine, Huntsman's Pistillate, Eberlein, Brilliant, Cornucopia, Refulgent, Unique Scarlet, Serena, Dundee, Willey, Genesee, Bishop's Seedling, Monstrous and Prolific Swainstone, Unique Prairie, the Alpine varieties, and many others, at reduced rates.

N. B. Descriptive catalogues with prices of trees, plants, roses, strawberries, bulbs, &c., will be sent to post-paid applicants.

s1t WM. R. PRINCE & Co.

EAGLE PLOW.—No. 28.—The following extract from the letter of a gentleman who purchased one of these plows, fully explains its character. "In answer to your inquiry how I like the great breaking plow, I have to say it entirely exceeds my expectations, and even your own recommendation, which I then thought quite extravagant. I put on four stout yoke of oxen, and drove into the thickest patch of scrub oak roots upon my farm; not without some misgivings, that I should break the plow instead of the roots; but I have now turned over twenty acres as completely as though it had been nothing but stubble, and the plow is this day better than it was when it came from your store. I think it the cheapest and best plow for such heavy work ever invented."

These plows are for sale at our Agricultural Warehouse, No's. 189 and 191 Water st., New York. Price, plain, $18—full rigged, with wheel, draft rod, and cutter, $20.

A. B. ALLEN & Co.

GREENHOUSE PLANTS, VINES, AND Roses. Parsons & Co. offer for sale every desirable variety of Greenhouse Plants, and many valuable novelties recently introduced from Europe. Attention is particularly directed to their fine stock of Camellia wilderii, the perfection of whose form is not attained by any other variety. The original stock, both of this and C. Abbey Wilder, is in their possession.

Growers of Grapes are invited to examine their Vineries, now in full fruit, and from which they can furnish good vines of about forty varieties, at

50 cents for those one year old.
75 " " two years old.
$1.00 " " of extra size.

Their stock of saleable roses includes some thousands on their own roots of the Remontant, Bourbon, China and Garden Roses, in their various sub-classes. Catalogues furnished gratis on application to Flushing, near N. Y. PARSONS & Co.

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NEW-OXFORDSHIRE BUCKS FOR SALE. The subscriber has a number of yearlings and two-year-old bucks which he will sell any time when called for, and has no hesitation in saying this breed of sheep is superior to all others for large carcass, heavy fleeces, early maturity, and constitution, and defies competition with all other breeds for profit. This flock, (which has been bred from some of the best ever imported,) is so well known they need no further description than to say that the sire clipped 18 pounds of washed wool, and weighed 361 pounds alive. Gentlemen are invited to call and see for themselves, or communicate by mail. Direct to

ju 5t CLAYTON B. REYBOLD, Delaware City, Del.

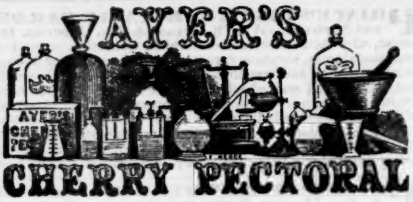
ENDLESS-CHAIN PUMPS, OR WATER Elevators.—These highly approved machines operate upon the same principle as those used for grain. The elevator is made a part of an endless chain, that works over an iron wheel, and down into the water, around a pulley into the tube, through which a constant stream is made to flow into the pail, by simply turning the crank, attached to the wheel at the top, which any light hand can do with great ease. They are made of several sizes, and can be fitted up for any depth well, or cistern required.

A New Use for Chain Pumps.—One of these of large bore, is the most efficient machine ever used for emptying the vaults o privies, where the contents are in a semi-liquid state.

A. B. ALLEN & Co., 189 and 191 Water st., N. Y.

LIGHTNING RODS, constructed on scientific principles, and if properly put up, will render churches and other buildings secure from the electric shock.

my A. B. ALLEN & Co., 189 and 191 Water st.



For the Cure of

COUGHS, COLDS, HOARSENESS, BRONCHITIS, CROUP, ASTHMA, WHOOPING COUGH AND CONSUMPTION.

This remedy is offered to the community with the confidence we feel in an article which seldom fails to realise the happiest effects that can be desired. So wide is the field of its usefulness and so numerous the cases of its cures, that almost every section of the country abounds in persons, publicly known, who have been restored from alarming and even desperate diseases of the lungs by its use. No family should be without it, and those who have used it, never will.

Read the opinion of the following gentlemen, who will be recognised in the various sections of country where they are located—each and all as merchants of the first class and of the highest character—as the oldest and most extensive wholesale dealers in medicine with an experience unlimited on the subject of which they speak. If there is any value in the judgment of experience, see

THIS CERTIFICATE.

We, the undersigned, wholesale druggists, having been long acquainted with Ayer's Cherry Pectoral, hereby certify our belief that it is the best and most effectual remedy for pulmonary complaints ever offered to the American people. And we would, from our knowledge of its composition, and extensive usefulness, cordially commend it to the afflicted as worthy their best confidence, and with the firm conviction that it will do for their relief all that medicine can do.

Henshaw, Edmands & Co., Boston, Mass.; Reese & Coulson, Baltimore, Maryland; Ladd & Ingraham, Bangor, Maine; Haviland, Harrall & Co., Charleston, S. C.; Jacob S. Farrand, Detroit, Mich.; T. H. McAllister, Louisville, Ken.; Francis & Walton, St. Louis, Mo.; Joseph Tucker, Mobile, Ala.; Theodore A. Peck, Burlington, Vt.; Haviland, Risley & Co., Augusta, Ga.; Isaac D. James, Trenton, N. J.; J. M. Townsend, Pittsburg, Penn.; Clark & Co., Chicago, Ill.; E. E. Gay, Burlington, Iowa; M. A. Santos & Son, Norfolk, Va.; Edward Bringhurst, Wilmington, Del.; John Gilbert & Co., Philadelphia, Pa.; Z. D. & W. H. Gilman, Washington, D. C.; J. Wright & Co., New Orleans, La.; Chas. Dyer, Jr., Providence, R. I.; Jos. M. Turner, Savannah, Ga.; Wade, Eckstein & Co., Cincinnati, Ohio.

IN FOREIGN COUNTRIES.

J. G. Coffin & Co., Valparaiso, Chili; F. M. Dimond & Co., Vera Cruz, Mexico; Fred. Rivas & Co., Bogota, New Granada; S. Provost & Co., Lima, Peru; Morton & Co., Halifax, Nova Scotia.

With such assurance, from such men, no stronger proof can be adduced, except that found in its effects upon trial.

Prepared and sold by JAMES C. AYER, Practical Chemist, Lowell, Mass., and by druggists generally. sept. 3t

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IMPORTED DEVON BULL FOR SALE.—We intend offering for sale at the auction held on the closing day of the New-York State Agricultural Society's Show, at Rochester, in September next, if not previously disposed of, our thorough-bred imported Devon bull Megunticook, which took the first prize at the show of the American Institute last autumn.

Megunticook was five years old in April last; was bred by Mr. Baker, of Devonshire, England. He was got by Prince Albert out of a cow sired by Silifant, and was purchased by Mr. George Turner, of Barton, near Exeter, England, in the spring of 1848, who used him one season, and sent him to us in the autumn of that year. Prince Albert took the first prize at the Royal Agricultural Society's Show, held at Southampton, and was sold to the French government for 120 guineas. Silifant was one of Mr. James Quartly's favorable bulls, and was sold for 100 guineas.

W. P. & C. S. WAINWRIGHT,
au 2t Rhinebeck, Dutchess Co., N. Y.

NEW BREED OF DUCKS.—The subscriber has for sale a few pair of a cross between the black Botany-Bay and the white Aylesbury breeds. They are jet black with white or mottled necks and breasts, and seem to partake of the disposition of the Aylesbury to live on grass, and to thrive without water. Price, $5 per pair, delivered boxed, on board of any vessel or conveyance in New York.

sept 3t S. B. PARSONS, Flushing, near N. Y.

THE NEW-ENGLAND

Live-Stock Insurance Company,

New Haven Conn.,

CAPITAL $50,000,

With power to increase to $100.000.

Insures horses, cattle, &c., against loss from death, either from natural causes, or accident, or from disease of any description.

THOMAS KENDRICK, President.

T. REYNOLDS, Secretary.

New-York agency, corner of Wall and Hanover streets, Merchants' Exchange. ju 1y

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SHORTHORN BULLS FOR SALE.—The subscriber offers for sale the following shorthorn bulls. They are of the Princess tribe bulls; and their equals cannot be shown in America:—

EARL OF SEAHAM, (10,181),

Deep Roan; calved April 21st, 1848; bred by John Stephenson, Esq., Wolviston, county of Durham, England; imported 1850, by A. Stevens and J. M. Sherwood; got by Earl of Antrim (10,174); dam, Primrose, by Napier (6,238); grandam, Rose Ann, by Bellerophon (3,119); great grandam, Rosette, by Belvedere (1,706); gr. gr, grandam, Red Rose, by Waterloo (2,816); gr. gr. gr. grandam, Moss Rose, by Baron (58); gr. gr. gr. gr. grandam, Angelina, (bred by Sir Henry Vane Tempest,) by Phenomenon (491); gr. gr. gr. gr. gr. Anna Boylene, by Favorite (252); gr. gr. gr. gr. gr. gr. grandam, Princess, (bred by Robert Colling,) by Favorite (252); gr. gr. gr. gr. gr. gr. gr. grandam, Brighteyes, by Favorite (252); gr. gr. gr. gr. gr. gr. gr. gr. gr. grandam, Brighteyes, (bred by Alexander Hall,) by Hubback (319); gr. gr. gr. gr. gr. gr. gr. gr. gr. gr. grandam, Brighteyes, by Snowdon's Bull (612); gr. gr. gr. gr. gr. gr. gr. gr. gr. gr. grandam, Beauty, (bred by Thomas Hall,) by Masterman's Bull (422); gr. gr. gr. gr. gr. gr. gr. gr. gr. gr. gr. grandam, Duchess of Atholl, by Harrison's Bull (292); gr. gr. gr. gr. gr. gr. gr. gr. gr. gr. gr. gr. grandam, Tripes, (bred by C. Pickering,) by Studley Bull (626); gr. gr. gr. gr. gr. gr. gr. gr. gr. gr. gr. gr. gr. gr. grandam, bred by Mr. Stephenson, of Ketton, in 1739. See 9th vol. Herd Book, pages 65 and 526). Earl of Seaham won the first prize for two-year-old shorthorn bulls at the New-York State Agricultural Show, 1850; and first prize for aged bulls, or those two years and above, of the American Institute of New York, in October, 1850.

A BULL CALF,

Red, with a very little white; calved January 22d, 1851; got by imported 3d Duke of Cambridge (5,941); dam imported Princess III., (bred by Mr. Stephenson,) by Napier (6,238); grandam, Rose Ann, by Bellerophon (3,119,) as in Seaham's pedigree; Rosette, by Belvedere (1,706); Red Rose, by Waterloo (2,816); Moss Rose, by Baron (58); Angelina, by Phenomenon (491); Anna Boylene, by Favorite (252); Princess, by Favorite (252); Brighteyes, by Favorite (252); Brighteyes, by Hubback (319); Brighteyes, by Snowdon's Bull (612); Beauty, by Masterman's Bull (422); Duchess of Atholl, by Harrison's Bull (292); Tripes, by the Studley Bull, (626,) out of a Cow bred by Mr. Stephenson, of Ketton, in 1739. (See Herd Book, vol. 9th, page 550, under head Rose Ann).

They are now on Col. Sherwood's farm at Auburn. He invites breeders and purchasers to see them. He can assure those who have not seen Seaham, that the portrait of him in this number of this paper, *at least*, is no better in any respect than he is, either in substance or style.

The above bull calf is an extraordinary one, of fine style; rich red color, with little white.

These two Bulls are of the superior Princess tribe of shorthorns, *the best for milk, quality, and style, in England or America.*

Purchasers desiring superior animals, can meet their wishes here; and, if they wish the *Princess tribe blood*, can get it nowhere except of the subscriber and Mr. Stevens, who alone, in the United States, have anything of that tribe, and they have none but those for sale. A. B. Allen, 189 Water street, New York, will give information as to prices.

J. M. SHERWOOD.
au 2t Auburn, Cayuga Co., New York.

FRUIT AND ORNAMENTAL TREES FOR SALE.—50,000 Peach trees of one and two years growth, from the bud; 40,000 Apples; 5,000 Cherries; 5,000 Dwarf Pears, each containing all the most esteemed varieties, and of large size. Also Quinces, Plums, Nectarines, Apricots, Almonds, Grapes, Raspberries, Gooseberries, Currants, Strawberries, &c., &c. 50,000 Silver and Ash-leaved Maple Seedlings of one year's growth; 50,000 Apple Seedlings. The above will be sold on the most reasonable terms. Persons residing at the south and west should send their orders early, so that the trees may be forwarded by the last of October or first of November. Catalogues with prices annexed will be sent to all applicants.

au 3t* ISAAC PULLEN,
Hightstown, Mercer Co., New Jersey.

HIGHLY IMPROVED ESTATES AND VALUABLE TIMBERED LAND ON LOWER JAMES RIVER FOR SALE.—The undersigned, prevented by engagements, requiring his undivided attention elsewhere, from residing on his estate, will sell, on the premises, publicly, at 11 o'clock, A. M., on Tuesday, the 23d day of September next, without regard to weather, that large and valuable body of highly-improved arable and heavily-timbered land, extending up the north side of James River, from the Chickahominy, a distance of more than five miles, in the county of Charles City, Virginia, well known under the general designation of "Sandy Point."

This estate lies 33 miles below Petersburg, 45 miles below Richmond, and about 65 miles above Norfolk, in what is justly considered the finest and most extensive grain-growing region of Virginia, and as healthy as any on our rivers. Spring and well water abundant and excellent. The number of acres is upwards of 4,000, of unsurpassed natural quality, of which more than 2,000 acres have been thrice limed, and are now in a high and successful state of cultivation, upon the five-field rotation; and more than 1,000 acres well set in clover. The balance, chefly in wood and timber, embracing some of the best timbered land in Eastern Virginia, convenient to good navigation. Marl abounds on the river, and stone lime is supplied at 6¼ cents per bushel.

The division will be nearly as follows, of which surveys and maps will be exhibited:—

[No. 1.] "UPPER QUARTER," 841 acres, 560 improved, 281 principally in wood and timber. Buildings—a small frame dwelling, kitchen and laundry, smoke house, negro houses, &c. Barn with sheds and stationary horse power and shelters.

[No. 2.] "UPPER TEDDINGTON," The family residence, 797 acres, 540 improved, 257 principally in wood and timber. Buildings—a commodious wooden dwelling, large two-storied kitchen and laundry, ice house, new and commodious stable and carriage house, storehouse, shops, servants' houses, and every other convenient outhouse usually on such farms. Also, a new barn, part wood and part brick, with four floors, 80 by 38 feet, and a wing 30 by 50, for bone, plaster saw and grist mill. In the barn are two new 36-inch drums, revolving rakes, fans, sieves, and every other appurtenance for threshing and winnowing wheat, shelling and fanning corn, grinding, and sawing; all efficiently driven by a 16-horse power stationary engine, in complete order and condition. The orchards are large and stocked with fruit of every variety, of the finest quality.

[No. 3.] "LOWER TEDDINGTON," 716 acres, 564 improved, 152 principally in wood and timber. Buildings—a new framed dwelling, with 4 rooms and a passage, negro houses, a large and well-arranged barn, with stationary horse power and shelter, two large stables for horses and oxen, extensive hay house, and well-constructed buildings for the protection of wagons, carts, implements, &c.

[No. 4.] "NECK," 707 acres, 537 improved, 171 principally in wood and timber, exclusive of more than 120 acres of meadow or marl land, well located, and reclaimable at small expense.

A valuable winter fishery belongs to this farm. Buildings—a small new frame dwelling, smoke house, negro houses, stable, and large barn, with stationary horse power and shelter.

Each division has a good landing, at which wharves can be erected cheaply and conveniently. To Upper Teddington, within 100 feet of the barn, belongs a new commodious and substantial wharf, adapted to any sized vessel. Steamers pass twice a-day, and sometimes oftener, from Richmond, Petersburg, Norfolk, Baltimore, and Philadelphia.

[No. 5.] 1,200 acres of timbered land, considered the most valuable in this part of Virginia, lying on and near navigation, which will be divided in parcels of 100 acres or more.

Also, all my stock of every description, consisting of 164 head of superior improved cattle, of the Devon, Durham, and Ayrshire crosses. Among them, one fine full-blooded, and one half-blood Ayrshire bull; 210 sheep of the stock of Mr. Reynold, of Delaware; hogs; 39 mules and 3 horses—together with a large and valuable collection of implements of every variety, &c., &c.

Before the day of sale, more than 425 acres of the clover will be fallowed, and purchasers will have time and the privilege of extending the preparation for seeding to suit themselves.

Full possession of the farms given on the 1st of January next; of the timbered lands immediately.

Mr. Nichol, residing at Sandy Point, is prepared to show the property in my absence, and a particular examination is invited before the sale.

A portion of the slaves, in families only, will be sold to the purchasers of the farms, if desired.

TERMS.—For the farms, one fifth cash, the balance in five equal instalments, with interest payable annually upon all the instalments. For the timber land, one fourth cash, the balance in three equal annual instalments, interest payable annually as above. For the perishable property, a credit of 12 months upon all sums over $100. Approved personal security upon all credit payments and deeds upon the lands, additional.

☞ Letters of inquiry, addressed to Petersburg, Va., will be promptly answered. au 2t ROBERT B. BOLLING.

ALDERNY BULL CALVES.—Two very fine Alderny bull calves for sale, of the late importation by Mr. Taintor. These are from imported cows that have taken first premiums, and were considered equal to any in the island of Jersey.
au A. B. ALLEN & CO., 189 and 191 Water st.

SENECA LAKE HIGHLAND NURSERIES, Catharine, Chemung County, New York, New Havana Depôt, N. Y. & Erie Railroad. Large-sized fruit trees for orchard planting, of every kind; dwarf trees for yards of the pear, cherry, and apple, bearing size; ornamental trees and shrubs, deciduous, and evergreens; climbers, grape vines, raspberries, gooseberries, currants, strawberries, cranberry vines, green-house plants, roses, dahlias, &c. The new and unequaled fall and winter apples, Douse or Hawley and Wagener, nursery stocks, &c. Persons wishing trees to plant or sell, are referred to this fall's descriptive catalogue, for the great and unequalled inducements offered as to price and quality, which will be furnished gratis, on application by mail. Packages amounting to $10 will be sent free of charge, on the Erie Railroad, to New York or Dunkirk, or any intermediate station. E. C. FROST.
s1t*

NEW USE FOR ENDLESS-CHAIN PUMPS, *very important to farmers who use night soil.*—We have chain pumps with a three-inch bore, by which the contents of a privy in a semi-liquid state can be discharged from a vault 10 to 20 feet deep, directly into a cart, in the most rapid manner, without handling. This machine obviates nearly all the difficulties of one of the most disagreeable and often neglected labors upon the farm. Price complete, 75 cents per foot if under 10 feet, and 62½ cents per foot if over 10 feet long.
sep A. B. ALLEN & CO., 189 and 191 Water st., N. Y.

BERKSHIRE PIGS.—The subscriber has for sale several pair of this fine breed, of warranted purity, and six to ten weeks old. Price, $20 cash per pair, delivered boxed, on board of any vessel or public conveyance in New York.
s2t S. B. PARSONS, Flushing, near N. Y.

PATENT ZINC PAINTS.—The Zinc White Paint is rapidly superseding white lead, over which it possesses many advantages. It is whiter and more beautiful than white lead—does not turn yellow, even when exposed to sulphurous vapor, has no smell, is not injurious to health, and is really cheaper, as it covers more surface and is more durable. This superior zinc paint is kept constantly on hand, both dry and ground in oil.

ZINC BROWN AND BLACK PAINTS are both weather and fire proof—the best covering for outside work ever introduced; adapted to buildings of wood, brick, or stone; fences, carriage bodies, bridges, and machinery; the hulls of vessels, anchors, chains, and all other iron work on board ship; Steam boilers, smoke stacks, and water tanks; iron, tin, and other roofing, iron, shutters, doors, and railings, wire fences, &c. For iron surfaces, this paint is especially valuable, as it forms a galvanic connection, and entirely prevents rust. May be had both dry and ground in oil.

In preparing these paints for use, when dry, they should not only be slightly mingled with oil, but thoroughly worked in with as little of it as may be necessary to give the proper fluidity, when they will cover well and and give entire satisfaction. When ground in oil, they are treated in all respects like white lead.

Dealers supplied by S. T. Jones & Co., general agents for the New-Jersey Exploring and Mining Co.'s Patent Zinc Paints, No. 53 Beaver street, New York. ju 6m

VALUABLE REAL ESTATE FOR SALE. I offer for sale my entire real estate, upon which are 35 sets of boxes; the most of which have only been in use from one to two years; with a sufficient quantity of round trees to cut at least 20 sets more; the land upon which these are situated, is not easily surpassed by any piney lands in Eastern Carolina. There is upon the premises two distilleries neatly and conveniently fitted up, with all necessary outhouses. Upon the farm, I think the buildings altogether are seldom excelled. Those wishing to purchase are invited to examine for themselves. Terms shall be low, and payments accommodating. Come and see. Any person wishing to purchase can be furnished with a sufficient number of teams and wagons to carry on both the operations of farm and turpentine, and with a year's supply of provisions.
mar tf. JOHN A. AVIRETT, Catharine Lake, Onslow Co., N. C.

A FARMER WANTED.—A man capable to manage a small farm, garden, and orchard, in a healthy mountain region of North Carolina, who has a wife, able and willing to take charge of milk and butter making upon a small scale, may address M. R. Singleton, Flat Rock, North Carolina. The applicant must be American, or long resident in this country. Particulars given when desired. au 2t

NEW-ORLEANS AGRICULTURAL Warehouse, comprising a large assortment of Plows, Harrows, Cultivators, Fanning Mills, Corn Shellers, Corn and Cob Crushers, Straw Cutters, Ox Shovels, Ox Yokes, Grain Threshers, Corn Mills, Axes, Hoes, Shovels, and other Agricultural Implements. Also, Gardening Tools, Guano, Plaster, Rock Salt, &c. &c. Orders will be executed for every article wanted by Planters.
jn tf GEO. W. SIZER, cor. of Magazine and Poydras sts.

NEW-YORK
AGRICULTURAL WAREHOUSE AND SEED STORE,.

A. B. ALLEN & CO. 189 AND 191 WATER STREET, NEW YORK.

THE SUBSCRIBERS *keep constantly on hand, and offer for sale the largest and most complete assortment of Agricultural and Horticultural Implements, and Field and Garden Seeds in the United States, among which may be found the following :—*

MILK PANS.—Glass and Enamelled Iron Milk Pans, very desirable articles.

CHURNS.—Thermometer, Atmospheric, Kendall's, and other kinds.

HAND CULTIVATORS and Hand Plows are very useful implements in garden culture.

BATCHELDER'S CORN PLANTER, a very desirable and efficient machine. Price $14.

SCYTHES.—Grass, Grain, Bush, and Lawn Scythes of the best kinds.

RAKES.—A large assortment Steel, Iron, and Wooden-headed Garden Rakes, and Lawn and Hay Rakes.

HORSE HAY RAKES.—We shall soon be supplied with new and highly-improved patterns.

REAPING AND MOWING MACHINES.—These have been fully tested, and embrace many late improvements, and we can highly recommend them.

MANURE FORKS, SHOVELS, SPADES, &c.—Our assortment we intend shall be unequalled either for variety or superior quality.

GRAIN DRILLS, a machine which every large grain planter should possess. We have them of the best patterns, embracing most valuable improvements.

GARDEN AND FIELD ROLLERS, made of any desired number of iron sections, one foot in width, and 20 and 28 inches diameter, for either hand or horse, very superior and exceedingly useful implements.

POTATO OR SMALL DOUBLE-MOLD Plow, the best implement made for hilling or digging potatoes, throwing them perfectly out of the hill. By extra molds, which can be attached, it makes a superior double mold-board plow. Price $6.50 to $8.

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PLOWS, of a great variety of styles, sizes, and patterns, made in the most durable manner, and with the latest improvements, suited to all kinds of soils, crops, and modes of cultivation, embracing the celebrated Eagle, Miner & Horton, and Steel-Pointed, Self-Sharpening Plows; Lock-Coulter Plows, expressly for breaking up and working new land; Side-Hill, Sub-Soil, Double-Mold and Three-Furrow Plows. Also, a large variety of the most approved Southern plows, particularly adapted to cotton, sugar and rice cultivation.

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TOBACCO, OIL AND SEED PRESSES, made on progressive principles, to take the place of the Hydraulic press. These are much more efficient than the latter; at the same time they are more economical. Their superior merits have been recently satisfactorily tested by several large oil manufacturers in this vicinity, where the machines may by seen in operation

HORSE POWERS, THRESHERS, AND Separators.—The Endless Chain or Railway Power, of our own manufacture, both single and double-geared, for one and two horses, which has never been equalled by any other manufacturer for lightness in running, strength, durability and economy. They are universally approved wherever they have been tried.

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All the above-named machines are guaranteed the best in the United States. A. B. Allen & Co.